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THE

ALABAMA MANUAL

AND

STATISTICAL REGISTER

FOR

1875.

SHOWING THE GEOGRAPHICAL POSITION, COMMERCIAL
ADVANTAGES, AGRICULTURAL AND MANUFACTURAL RESOURCES, AND NATIONAL IMPORTANCE OF THE STATE OF ALABAMA
AND OF THE PORT OF MOBILE.

EDITED BY
JOSEPH HODGSON,
Late State Superintendent of Public Instruction.

[Published by request of the Mobile Board of Trade and of the Mobile Branch of the
Mississippi Valley Society, of London.]

MOBILE, ALABAMA:
PRINTED AT THE DAILY REGISTER BOOK AND JOB OFFICE.
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SHOWING THE GEOGRAPHICAL POSITION, COMMERCIAL ADVANTAGES, AGRICULTURAL AND MANUFACTURAL RESOURCES, AND NATIONAL IMPORTANCE OF THE STATE OF ALABAMA—A STATISTICAL GUIDE FOR THE IMMIGRANT AND HAND BOOK FOR THE CITIZEN.

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ALABAMA IN 1875.

General Description of the State—Population of Cities and Towns—Her Geographical Situation—Variety of Soil and Climate—Relation to the Gulf of Mexico—The Outlet of the Great River Basins, &c., &c.

The State of Alabama is situated upon the Gulf of Mexico, and lies between lat. 30 deg. 10 min. and 35 deg. north, and long. 84 deg. 53 min. and 88 deg. 30 min. west.

By the Federal census of 1870 she ranks sixteenth in population among the United States. Of the whole number of inhabitants, 987,032 are natives, and 9,962 foreign born: of the former 744,146 were born in the State. Notwithstanding the war which intervened during that period, the net gain in population from 1860 to 1870 was 3.40 per cent. Since 1870 the increase of white population has been very large; and the colored population has materially decreased from disease and emigration Westward. The whole number of male citizens 21 years of age and upwards is 202,182.

Alabama is divided into sixty-five counties, and contains nine cities. Mobile, on the Mobile River, near its mouth, and at the head of Mobile Bay, is the first in size and commercial importance, having a population in 1870 of 32,034. It is one of the most important ports on the Gulf of Mexico, being the natural outlet for South and West Alabama and for East Mississippi, and ranks next to New Orleans and Savannah in extent of cotton exports. The other cities are Montgomery, the capital, at the head of navigation on the Alabama River, (population 10,588); Selma, (6,484); Huntsville, (4,907); Eufaula, (3,185); Talladega, (1,933); Tuskaloosa, (1,689); Tuscumbia, (1,214); and Birmingham, (4,000).

The more important towns are Greenville, (population 2,856); Marion, (2,646); Florence, (2,003); Greensboro, (1,760); Union Springs, (1,455) Lafayette, (1,382); Prattville, (1,346); Wetumpka, (1,137); Auburn, (1,018); and Cullman, Athens, Jacksonville, Decatur, Eutaw, Livingston, Demopolis and Camden, with populations less than 1,000.

The population of Alabama was:

	WHITES.	COLORED.	TOTAL.
In 1820	85,451	42,450	127,901
In 1830	190,406	119,121	309,527
In 1840	335,185	255,575	590,753
In 1850	426,514	345,109	771,623
In 1860	526,271	437,770	964,201
In 1870	521,384	475,510	996,894

The principal rivers are the Mobile, Alabama, Tombigbee, Chattahoochee, Black Warrior, and Tennessee.

The last mentioned passes through the northern part of the State, with a circular sweep from east to west, receiving no considerable tributaries on its southern side within Alabama, and flowing into the Ohio, at Paducah, Kentucky.

The other rivers mentioned flow into the Gulf of Mexico. Nearly all the waters of the State fall into Mobile river, by which principally the southern slope is drained into the Gulf. The eastern border is watered for several hundred miles by the Chattahoochee, a large stream, but having no considerable tributaries, from this State. The Alabama and Tombigbee, both large rivers, form by their junction, fifty miles above Mobile Bay, the Mobile River, which empties into that bay. A few miles below the junction the Tensas issues as a branch from the Mobile, and reaches Mobile Bay at Blakely, after having been augmented by another stream from the Alabama. The Tombigbee, coming from Mississippi, unites with the Black Warrior, which flows from Northern Alabama, and thus augmented, unites with the Alabama to form the Mobile.

The Black Warrior is navigated by steamers for 285 miles, and the Alabama for about 300 miles, although with interruptions in the dry season.

The Conecuh, Perdido and Choctawhatchee are smaller rivers. Mobile Bay is the main outlet of the navigable waters of the State, being about thirty miles long, and from three to eight miles broad. There is steamboat navigation in the State for nearly 1,500 miles.

In the southern portion of the State is a region extending for 132 miles north from the Gulf of Mexico, and 40 miles from the Florida State line, across the State, embracing an area of 11,000 square miles, which contains extensive pine forests, yielding excellent timber, tar and turpentine, while on the lowlands along the rivers in the same district are found the different varieties of the oak and the cypress, noted for the durability of their timber. The soil in this region is naturally adapted to raising grapes, apples, peaches and pears, and corn and cotton may be produced. It is also favorable for stock raising, the pine forests affording natural pasturage for cattle. It is watered by the Alabama and Tombigbee rivers, and there are also good railroad facilities. An abundant supply of fish and oysters is obtained from the waters of the Gulf and Mobile Bay.

North of this, for about one hundred and two miles on the western and sixty on the eastern line of the State, is a section of country characterized by extensive prairies, excellent climate and rich soil, which is highly productive of cotton, corn and provisions. This is one of the most fertile districts, most healthy and best adapted to agricultural pursuits of any in the South, while by its railroad and river facilities it has easy access to market. The land here will produce from fifty to sixty bushels of corn, or 800 or 900 pounds of seed cotton, per acre, and tracts which, before the late war, were held at from $30 to $50 per acre, may now be bought for from $5 to $10.

For about thirty-five miles further north, across the State extends a section in which the soil is poor, but which is healthy, and where numerous streams afford good water power, favorable to manufacturing purposes and having good railroad facilities.

In the northeastern part of the State is the *mineral* region, extending about one hundred and sixty miles in a southwesterly direction, with an average width of eighty miles. Here are found white, black and variegated marbles, soap-stone, flag-stone, graphite or plumbago and granite, with coal fields covering five thousand square miles, from one to eight feet thick, the coal being bituminous and well adapted for generating steam, and for the manufacture of gas, coke and iron.

Near these coal fields are extensive beds of limestone, sand stone and iron ore. Throughout this mineral district there are numerous fertile valleys, in which wheat, corn and cotton are produced, and which are well adapted to stock raising.

The northwestern portion of the State is a stock and agricultural region, producing cotton, corn, grain, grapes and stock, in which the climate is healthy, the soil rich. Before the war cultivated lands there were valued at from $30 to $50 per acre; now for the same the prices are from $5 to $10.

The Alleghanian range of Mountains, assuming the name of Appalachian, as they stretch southward, break to pieces in the centre of this State exposing to easy manipulation exhaustless deposits of useful and precious ores. This range divides the waters of the Tennessee from those of the Alabama. The former, in their southward course from Virginia, after vainly trying to break over the barriers of nature, at last turn northward to the Ohio. The latter, separated from the former by a mountainous region of only thirty miles in width, flow southward to Mobile Bay.

Upon the land-locked waters of this capacious Bay, may ride the fleets of the world. At a comparatively trifling cost a steamboat, moving southward from Cincinnati or St. Louis, might approach within thirty miles of another moving northward from Mobile Bay. The sagacious mind of President JOHN QUINCY ADAMS recognized the importance to the commercial interests of the West, and to the military defence of the Mississippi Valley, of breaking through the barrier which separates the Tennessee from the Alabama. In one of his messages to Congress, he recommended an appropriation of money for that purpose. Now, after half a century, the proposition is once more placed before Congress, with a prospect of favorable action. Alabama thus becomes in fact, as she was intended by nature to be, the most important gateway of trans-alleghany America.

Within the valleys of the Appalachian Mountains and upon the fertile plains of the Tennessee we find the most delightful climate and health-giving waters. Among the hills of the county of Blount are springs of greater medicinal virtue than those of Virginia. The tradition of the country is that Ponce DeLeon was seeking these fountains of perpetual youth when he lost his life upon the coast of Florida.

In this elevated and temperate region, grain matures six weeks earlier than at the north-west, and cattle graze throughout the year. The laborer loses but a few days in the middle of winter from the tillage of the soil, and here the Malaga grape, the fig, and the pomegranate flourish side by side in the open air.

Declining gently towards the South, the Appalachian Hills disappear in broad-extended prairies of surpassing fertility. These prairies stretch from the heart of Georgia to the Mississippi River, varying in breadth from sixty to one hundred miles. This is the cotton growing region, and here is concentrated the labor and production which turn the spindles and sustain the wealth of empires. Within this narrow limit is also concentrated the Negro races, far outnumbering the Anglo-Americans, and controlling not only municipalities but even States.

South of this cotton-belt, the pine forests and alluvial river-bottoms extend to the Gulf. Here are vast turpentine orchards. Here the stately yellow pine furnishes ship timber to all the nations of the world, and floorings for all the buildings of the western coast of the two Americas. Here the live-oak and osage orange give the sinews of navies. Here the gardener supplies the cities of the West with vegetables and fruits which are mature before their own have appeared above the more inhospitable soil. And here the orchards of orange, and the groves of magnolia, perfume the soft breezes of the Gulf. A State so diversified as to soil and climate is capable of producing every commodity necessary for the sustenance of man.

Alabama is the key to the Gulf States; her water system links her to the older States of the Atlantic coast on the one side, and to the newer States of the Mississippi Valley on the other. The State of Mississippi has no harbor. The mouth of the Mississippi River is treacherous and difficult. The Bay of Galveston is too remote from the centre and too insufficient. The harbor of Pensacola, the best on the Gulf, is in effect a harbor of Alabama. The Bay of Mobile, almost sufficient by nature for the heaviest tonnage and capable of great improvement by art, is naturally the central and preeminent entrepot of the maratime world which seeks the northern shores of the Mexican Gulf.

The ports of the Gulf States, Mobile, Pensacola, New Orleans and Galveston, are the gateways of the Mississippi Valley. The railroads which connect the Western country with the ports of the Atlantic cannot transport agricultural products in requisite quantity, or at remunerative prices. The population of the West multiplies more rapidly than the lines of trans-continental railroads. By way of the Gulf ports the cereals of the Mississippi Valley to a great extent must go forth to meet the great demands of the old world, and to the entire extent to meet the coffee and other products of South America and the Caribbean seas.

The South American and Central American States may be said to stand at the source of the Gulf stream. Into this equatorial current which sweeps along the coast of South and Central America is emptied the waters of the Amazon. It touches the shores of Brazil, the Guianas, Venezuela, New Grenada, Costa Rica, Guatemala, Honduras, Mexico, Texas and Louisiana. Bottles thrown into the mouth of the Amazon are stranded on the coast of Louisiana. A vessel can steer with bare pole along this Gulf current, and without unfurling a sail make the voyage from Guiana to the South Pass of the Mississippi River. So powerful is this current at the Pass that it erodes the bottom of the ocean to the depth of seven thousand feet. Into its powerful embrace it receives the waters of the Amazon, the Orinoca, Magdalena, Rio Grande, Brazos, Mississippi and Alabama, pointing out the natural course of the tropical trade and demonstrating the design of an All-wise

Creator in thus linking together the drainage of two continents.

The ports of the Gulf look out upon the India which Columbus discovered. They are destined also to look out upon the India which Columbus sought. A line of continental railway from New Orleans to San Francisco, flanking on the South the central barrens and developing a country of unsurpassed agricultural and mineral resources, presents at the same time the shortest route between the shipping of the Atlantic and Pacific, and the amplest security against obstructions by snow. But between far distant points railways cannot compete with navigation. It appears the design of Providence that the commodities of Asia and of the Mississippi Valley should interchange by way of the Isthmus of Darien. That is the main gateway to the East. The Gulf of Mexico must soon be to the nations of the Atlantic what the Mediterranean Sea was in the middle ages.

When the Caravans which followed the routes marked out by the Crusaders greeted upon the shores of the Mediterranean the products of Europe with the riches of the Orient, the cities of that genial inland sea rose into beauty and commercial magnificence. They gave arts and sciences to mankind, and broke with a rising sun through the gloom of the mediæval ages.

In the westward march of empire the points of the compass are changed. What was once the East of Vasco di Gama and the DeMedicis, is now the West of the United States. The people of Asia are stretching their labor and commodities towards the Isthmus of Darien, and the day appears not far distant when the cities of the Gulf will repeat the glories of their fallen sisters of the Mediterranean.

"Here upon this central sea," in the language of Maury, "Nature has, with a lavish hand, grouped and arranged in juxtaposition, all those physical circumstances which make nations truly great. Here she has laid the foundation for a commerce the most magnificent the world ever saw. Here she has brought within the distance of a few days the mouths of her two greatest rivers. Here she has placed in close proximity the natural outlets of her grandest river basins. With unheard of powers of production these valleys range through all the producing latitudes of the earth. They embrace every agricultural climate under the sun; they are capable of all variety of production which the whole world besides can afford. On their green bosom rests the throne of the vegetable kingdom. Here commerce too, in time to come, will hold its court.

"The three great outlets of commerce—the Delta of the Mississippi and the mouths of the Hudson and Amazon—are all within two thousand miles, ten days sail of Darien. It is a barrier that separates us from the markets of six hundred millions of people—three-fourths of the population of the earth. Break it down therefore, and this country is placed midway between Europe and Asia; this sea becomes the centre of the world and the focus of the world's commerce."

The Gulf States of which Alabama is the centre embrace an area as great as that of France and England combined. They could maintain with ease a population of one hundred millions, equal to that embraced in a like area of the more inhospitable countries of Central Europe.

The area of Alabama is 50,722 square miles, divided, in an industrial point of view, into five great divisions, each of which will be treated in turn, after reference to the questions of health and climate:

	SQUARE MILES.
1. The timber region, containing	11,000
2. The cotton region, containing	11,500
3. The manufacturing region, containing	8,700
4. The mineral region, containing	5,000
5. The stock and agricultural region, containing	14,522
Total area	50,722

CLIMATE AND HEALTH OF ALABAMA.

Mobile—Its situation and surroundings—Health, compared with other cities—Health of other parts of the State—U. S. mortuary report—Comparison with other States—Testimony of Dr. J. C. Nott, etc.

Mobile is situated on the west bank of Mobile River, just where it empties into Mobile Bay. The site is but little elevated above the level of the river, but sufficiently so for all purposes of drainage. The soil is dry and sandy. Immediately above the city, on the north, is a large swamp, extending along the banks of the river. Back of the city, on the northwest, west and south, the dry, sandy pine hills commence, affording delightful and healthy retreats from the heat, sickness, and annoyances of the city during the summer months, and at such infrequent times as yellow-fever may be brought through the quarantine. Yellow-fever never originates at Mobile, or at any other point in Alabama. During the war the entire Gulf coast was free from that disease, and not a single case is known to have occurred in Mobile. The blockade was an effective protection, and no reason exists why a quarantine could not be established, and be made as effective hereafter, as was the blockade during the war; yet, if by accident, the yellow-fever should be brought to Mobile, the neighboring pine hills, upon which have sprung up the villages of Spring Hill, Summerville, and Fulton, afford a safe retreat.

As an illustration of the health of Mobile, the following table is given. It shows the number of each class—whites and blacks—males and females—who died in Mobile, from 1845 to 1850, inclusive:

	1845.	1846.	1847.	1848.	1849.	1850.	TOTAL.
Males	279	324	396	536	580	396	2,511
Females	163	159	212	267	329	220	1,350
Whites	320	339	443	566	637	433	2,728
Blacks	122	144	175	239	273	173	1,131
Total	442	483	618	805	910	606	3,859

Within that decade which embraced the two years, 1848 and 1849, in which the cholera and its kindred affections swelled the mortality somewhat, we find that the average mortality was 611 per annum. By comparing this average with that of other cities, we find that in Mobile the percentage of deaths is less than in Philadelphia or New York, and very little more than in London or Paris, where longevity has been reduced to a science. Thus the annual mortality in 1850, of

London, population	2,000,000	was	44,700
Paris "	1,000,000	"	23,500
New York "	440,000	"	23,400
Philadelphia "	400,000	"	14,000
New Orleans "	125,000	"	7,954
Mobile "	20,000	"	611

These figures would give a mortality for

London, of	1 in every	44	living.
Paris	1	42	"
New York	1	19	"
Philadelphia	1	27	"
New Orleans	1	15	"
Mobile	1	32	"

In examining the above table, we are struck with the greater mortality of males over females. The reason for this may be found in the hitherto careless habits and often useless exposure of the male population. Not only is the health of Mobile shown to be greater than that of other coast cities of the United States, but the fact is also established that the health of the Alabama Gulf coast would be still better if the male population would avoid useless exposure at certain seasons.

If this is true of Mobile, and no one can question it, what remains to be said of the interior prairie and mountainous sections of the State? Simply, that the health of Alabama can compare favorably with that of any of the most populous States of the North.

From the United States census of 1860, which is far more accurate than that of 1870, we learn by comparing the mortuary reports of the several States that the per centage of mortality is less in Alabama than in the State of Arkansas, Connecticut, Kansas, Kentucky, Louisiana, Massachusetts, Mississippi, Missouri, New Hampshire, Rhode Island, South Carolina, Tennessee, Texas, Virginia and Nebraska, and differs almost imperceptibly from that of any of the other States, except those remarkably salubrious States at the head waters of the Mississippi, where the air is always dry and as clear as crystal.

By referring again to the census of 1860, the idea that Alabama is afflicted with fevers throughout her prairie belt, is dissipated by a comparison with other States, and it will be seen that exposure to the heat of the summers of Alabama is less fatal than exposure to the cold of the winters of the North. In 1860 the deaths from the following diseases, in the following States, is thus stated by the census:

	FEVERS.	CONSUMPTION.	TOTAL.
Alabama	1,462	596	2,058
Tennessee	1,745	1,440	3,185
Massachusetts	975	4,845	5,820
Kentucky	1,669	1,742	3,311
Missouri	2,363	1.302	3,665

This comparison proves that the State of Alabama does not suffer as much from fevers, in proportion to her population, as Tennessee, Kentucky and Missouri, and that the advantages which the Northern and Eastern States may possess during the three months of summer are more than counterbalanced by the diseases incident to colder climates. The deaths from consumption in 1860 were—in New York, 8,207; in Ohio, 3,495; in Pennsylvania, 5,011; in Virginia, 2,109; in Indiana, 1,704; in Illinois, 1,948. By comparing this fatality with that of Alabama, it will be seen that consumption is far more fatal at the North than fevers are at the South. Thus nature draws off the balance-sheet of mortality, and by her unbending law of compensation always finds a debit for a credit.

That distinguished physician, Dr. J. C. Nott, who passed a life of eminent usefulness at Mobile, and whose evidence is unquestionable, did not hesitate to express his opinion that the climate and health of even the worst portions ot Alabama are equal to those of the Northern States. He says:

"We have said that the pine hills are healthy, and that the whites can and do live there with health. We have on the other hand said that the white man can not cultivate the rice fields, and a considerable portion of the *alluvial* cotton lands. *But on the other hand there is an immense proportion of cotton lands, on which white laborers can and will live with a reasonable degree of health—perhaps (when we take into consideration the many diseases incident to dense population) with as much health as in most parts of Europe from which our emigrants come.*

"A very large portion of our cotton lands are to a great degree exempt from malarial diseases, and making an average of the whole year, and thus including diseases of cold as well as heat, it may be well doubted whether these portions are not as favorable to health and longevity as either our New England or Western States. For example the lime or prairie lands of Mississippi and Alabama, and the uplands generally of the Carolinas, Georgia, and other cotton States—even the fertile lands on the banks of the Mississippi, when thoroughly drained and cultivated, may be considered as quite healthy, and if a good system of drainage culture was generally adopted, the proportion of land unsuited to white labor would be small.

"Laying aside all speculation on the subject, there are facts in abundance to prove that whites can live, labor and make cotton in our climate, and the bait is too tempting to be resisted.

"Even now, every where through the Carolinas, Georgia and the Gulf States, you see little farms worked successfully by white laborers, both male and female. We should, too, have seen a great deal more of this kind of labor had it not been for the proximity of slave labor.

"Another proof of the availability of white labor is seen around our towns—nearly all the market gardens around Mobile and New Orleans (and so with other towns) are cultivated by white laborers, although these localities are among the most insalubrious in the South. The towns themselves are healthy to the acclimated, but the marshy suburbs are very sickly.

"Who, let us ask, have built our Southern towns? Is it not almost exclusively Northern and foreign carpenters and bricklayers, who labor in the full blaze of a Southern sun?

"Although Germans, Irish and Northerners, can and will live and prosper in the Southern States, there is no doubt that emigrants from France, Spain and Italy would be most readily and perfectly adapted to our climate."

It may be said, that in no part of the State are the extremes of heat and cold felt, with rare exceptions, and then for no great length of time.

During the summer the mercury ranges from 104 deg. to 60 deg. F. In November and the winter months, from 82 deg. to 18 deg., and in Spring 92 deg. to 22 deg. The mean temperature of the State is about 63 deg., or perhaps something less, and the mercury seldom rises abov 93 deg.

TIMBER REGION OF ALABAMA.

Description by Lewis Troost, Esq.—Adapted to fruit culture—Susceptibility to fertilization—Pecular value of the oaks—New process of tanning—Value for turpentine and resin—Value of the hard pine—The saw mill interest—Orange Groves—Fig culture—Molasses, &c.

In an interesting article contributed to DeBow's *Review*, Lewis Troost, Esq., of Mobile, a distinguished civil engineer of that city, thus describes the most southern region of Alabama:

"The timber region is the most southern division of the State, bordering on the Gulf of Mexico and the State of Florida. It extends eastwardly and westwardly across the State, and northwardly 132 miles from the Gulf of Mexico, and 40 miles from the State of Florida.

"This section, except where occupied by the immediate valleys of rivers, is covered with forests of long-leaf yellow pine (pinus australis), affording excellent timber (of matchless size) for domestic, public, and naval purposes, and yielding also tar, pitch, and turpentine.

"The low lands of the rivers have growths of white, black, and Spanish oak, and bald and black cypress. The latter furnishes a timber, stated by the old Spanish settlers to last many years, even in the most exposed situations.

"The surface of the country is gently undulating, the highest elevations being about three hundred feet above mean low tide. The soil, consisting of sand and clay, and sandy loam based on clay, is poor, but when of the latter character, it is well adapted for the cultivation of grapes, peaches, apples, and pears. When manured, it is productive of cotton and corn, and preserves its fertility.

Stock Raising.—" In this section stock rearing is profitable, and is attended with little trouble; the piney woods, bordering on the streams, affording natural perennial pastures; and the climate being mild, housing the cattle is not required. The only expense incurred in this pursuit is to herd and export the cattle to market.

"The waters of the Gulf of Mexico and the Bay of Mobile supply fish and oysters of excellent quality, in great abundance.

"This division of the State is traversed from the north to south by the navigable rivers Alabama and Tombigbee, flowing into the Bay of Mobile, and by the Mobile and Ohio and Mobile and Montgomery Railroads, the first extending in a north by west direction from the city of Mobile, and connecting with the railroads of the Southwestern, Western, Northwestern and Northern States, and the second running in a north by east direction from Mobile, and forming a junction with the system of railroads of the Southeastern, Eastern, Northwestern and Northern States.

"The health of this section of country is good. It has been, since its first settlement, the summer resort of the cities, and of the planters cultivating the rich alluvial lands on the rivers. In late years, having been rendered accessible by railroads, it has become better settled, and is every day increasing in value, not only for summer residences, but for fruit-raising, and for manufacturing lumber and naval stores.

Farming—" Good locations for orchards, farms and gardens, convenient to market by the railroads, may be procured at from $1.50 to $4 per acre, depending on their proximity to the railroads."

Heretofore but little attention has been paid to this timbered region, except to obtain lumber and turpentine; but of late a new interest has attached to the pine land, in consequence of the railroads opening up a market for fruits, with the Northwest, and also in consequence of the capacity of such of the land as possesses a clay foundation to be highly improved by a free use of manure, and rendered largely productive of cotton. The land can be bought for a mere song. The timber upon it will more than pay for the land, and the vegetables and fruits, which are developed early, and which yield abundantly, can be shipped to the markets of Louisville, Cincinnati and Chicago, by railway, and anticipate the northern supply by six weeks or two months.

Pine lands in Georgia, similar to those of Alabama, are now, strange to say, producing cotton in equal luxuriance with those of the prairies. We venture to predict that in the course of another decade, a large proportion of the pine lands which possess clay foundation, will, in point of productiveness, be not far behind the cotton region, while they will be much preferable to the latter in point of health.

Oak Forests.—In alluding to the timbered region of Alabama, we must not fail to remember the new part which will soon be played by the magnificent forests of oak which grow upon the low lands of our rivers. The new enterprise of converting the astringent or tanning properties of crude oak bark into an imperishable extract, in the forest where the bark is peeled, and transporting that to market in place of the crude bark, is an enterprise that promises to the people of Alabama a most important source of revenue. This oak extract sells in New York, Philadelphia and Boston, at prices ranging from ten to twelve and a half cents per pound, and responsible parties in each of those markets are ready to contract for all they can get at eight cents per pound. One cord of prime oak bark will yield forty-five gallons of extract, which will weigh four hundred and fifty pounds, or ten pounds to the gallon; and at this price, eight cents, it will—after paying cost of the bark, say three dollars per cord, cost of manufacture, transportation from Alabama to New York, commissions for selling, cost of barrels, insurance, storage, etc.—return to the manufacturer a net profit of twenty-five dollars per cord. The most improved machinery used in the manufacture of this extract will produce two barrels of extract from two cords of bark per hour, or forty-eight barrels every twenty-four hours. A factory of this capacity, complete in all its appointments, will cost from seven to nine thousand dollars, the difference being in the cost of lumber at the place of construction. Mr. John B. Hoyt, for a number of years a citizen of Alabama, writes from New York to the *Mobile Register* that this calculation is strictly correct, and the reasons which he gives for thus estimating the value of our oak forests, in this connection, are very clear. He says:

"It must be remembered that Pennsylvania, New Jersey, New York, and the six New England States, produce five-sixths of all the leather manufactured in the United States, and that in these States no oak suitable for tanning purposes is grown, with the exception of Pennsylvania, and but limited quantities are found there. Oak bark in its crude form, in Southern forests, has, in consequence of distance, been prohibitory to Northern tanners, but the discovery of converting its tanning properties into an imperishable extract, has opened to the leather trade of the Northern States, and to those of all Europe, access to the great forests of oak on both slopes of the Cumberland Mountains, along their entire range from the Alleghanies to the Gulf.

"Leather dealers with whom I conferred, generally concede that oak extract must take the place of hemlock bark, or hemlock extract, in the manufacture of leather in the vicinity of Boston, New York, and Philadelphia; and in Europe, the place of East India extracts, which are principally used, as oak is preferred by all tanners."

Turpentine Orchards.—The pine lands of Alabama are also of great value for turpentine and resin. Immense "orchards" are laid off in the virgin forest of pines, and large fortunes have been made from small capital in conducting this profitable business. The orchard is already planted to hand by nature. The process of cutting the boxes is simple. When that labor is done, and the ground protected from accidents of fire, the boxes are filled by the process of nature, and the further labor is confined to the distillation.

Lumber.—But the great present wealth of this portion of the State consists in its splendid lumber. Since the war, notwithstanding the depression of business, large numbers of saw-mills have been erected upon Mobile Bay and its tributaries, by Northern men. Three-fourths of the pine lumber now shipped to New Orleans comes from the region between Mobile Bay and Pascagoula Bay.

It is well known that the best lumber regions of the North are fast being deprived of their forests. The lumber supply from Maine is in rapid process of exhaustion. New York has to get much of her lumber from remote regions in Canada. Michigan, Upper Wisconsin, and Minnesota, cannot long sustain the drain upon them for the enormous demands for lumber in the Great West. The rapidity with which the lumber supplies of the North are being exhausted, is indicated by the high price of lumber in the Northern markets, increasing, moreover, from year to year. Chicago sold, in 1867, about 750,000,000 feet of lumber. In one day last year, 238 vessels arrived at Chicago from the lake ports, loaded with lumber. Not only whole regions, but large towns and cities in the Northern States and in Canada owe their importance entirely to the lumber interest.

Now, here on the Alabama coast, is an inexhaustible supply of lumber, enough to fill all demands for a century to come, not only of hard pine lumber, but also of cypress, oak of various kinds, ash, gum, hickory, poplar, juniper, cherry, walnut, and some cedar. Moreover, the hard pine lumber is at least a hundred per cent. more valuable for many uses than the soft pine and spruce of the Northern forests. Spars have for twenty years been shipped from this region to England, France and Spain. A single piece, ninety-two feet long, a foot square at the upper end, is said to have been the finest spar ever shipped from this country.

These enormous tracts of "Piney Woods," which can now be bought for a trifle, will soon be sought for as a profitable investment. There are admirable localities for at least a hundred sawmills upon the tributaries of the bays and estuaries of Alabama, where vessels could load directly for New York, Baltimore, Havana, Texas, Mexico, South America or Europe.

Orange Groves.—The Gulf coast of Alabama is peculiarly adopted to the cultivation of the Orange. The islands about the mouth of Mobile Bay offering the most favored locality for its growth to be met with in North America. The islands and promontories lying along the coast, between Mobile Bay and the mouth of the Mississippi, are washed by the warmest waters ot the ocean. The line of highest temperature in the ocean, generally called the Oceanic Equator, starts at a temperature of 80 deg. F. in the Gulf of Guinea, Africa, where it is on the geographical line of the Equator. Soon after leaving the African coast, coming West, it bears north of the Equator. At mid-ocean in the Atlantic, it is about five degrees north of the Equator, and has a temperature of 83 deg. It nears the South American Coast at about ten degrees north latitude, with a temperature of 82 deg.; thence it continues along the coast, enters the Caribbean Sea, passes the west point of Cuba, and makes directly for the mouth of the Mississippi. When within a degree of the Balize, it circles abruptly around to the west and south, striking the land precisely at the dividing line between Mexico and Yucatan. Where the line passes Cuba the temperature is 83 deg., but at its nearest point to the mouth of the Mississippi it has risen to 89 deg.—the warmest water found in the ocean, being twenty-nine degrees above temperate and only nine degrees below blood-heat. The next warmest point in all the ocean is in the Pacific, immediately on the geographical Equator and just off the northern coast of New Guinea, but there the temperature is a little below that of the point named, off the mouth of the Mississippi. This point of highest temperature is immediately in the Gulf Stream, which flowing eastward with great velocity strikes the Florida cape and keys. A portion of the stream rebounds from the Florida peninsular, and comes whirling back in a counter current or eddy, occupying the indentation between the Florida cape and the outjutting lands at the mouth of the Mississippi, and encircling the islands of the coast in a sea of Equatorial temperature; which must always make them the most favored orange lands on the continent.

Fig Culture.—Nowhere does the fig flourish in greater perfection than in this region of Alabama. It may truly be said that we have no Southern fruit tree in cultivation the propagation and culture of which demands and receives so little care and attention as the fig, nor one which makes such generous and bountiful returns for the little time and labor usually bestowed upon it. It is a " wide blessing" —almost as freely bestowed as the air and sunshine of heaven! With the slightest possible assistance and encouragement, it grows and bears everywhere—in close yards and courts, amid the dust and smoke of pent-up cities; as well as in the open, breezy piney woods country, and on the poor, sandy low lands, down to the very margin of the sea. It can be propagated from seed, from layers, and from cuttings—the latter being the simplest and most popular method. These cuttings may be taken from either the old or new wood, and they will strike root as readily as the willow or the grape. The fig is thus unquestionably, with us, the poor man's and the novice's fruit, *par excellence.*

The fig extends through the whole summer, maturing three heavy crops. The trees are perfectly hardy, and neither they nor the fruit during its growth are injured by insects; although the fruit, when ripe, is greedily devoured by insects and birds; the poultry, too, are extremely fond of and thrive on them. But such vast quantities are yielded, by even a few trees, that there is enough for all. They begin to bear almost immediately, and continue to thrive through a great many years.

Sugar Cane Culture.—Experiments in the year 1874 have shown the pine lands of South Alabama to be valuable for sugar cane culture. Without exception, those who have experimented intelligently, are enthusiastic in advocating large diversion of effort in this direction—claiming its peculiar adaptability to either the rich heavy " bottoms," the poor " black-jack " ridges, or the thin sandy lands of our piny woods belt.

Fertilizers are required only on the lighter soils—say, a ton of cotton seed meal to the acre, at the utmost; and worth at present quotation, about $25 per ton. The pressed and exhausted cane itself supplies much of the element withdrawn from the soil in its own nourishment. A short supply of seed cane has retarded more extensive cropping.

The extreme seasons of 1874 have afforded a satisfactory test of the capacity of this plant to resist disastrous effect from a cold, wet spring, followed by unusual drought after June.

It would seem to be demonstrated, that in this region cane is less liable to damage from climatic influences than almost any other cultivated growth, whilst demanding, after first planting, no more care than an ordinary corn crop. Two thousand seed cane, costing say two cents each, will plant an acre, and produce eight or ten times the bulk of seed, say 18,000 to 20,000 cane to the acre, yielding 350 to 450 gallons of syrup, which sells readily for 60 to 70 cents per gallon, at wholesale, and would pay a handsome profit to growers even at 40 cents. The ready sale of syrup has operated to prevent proportionate production of sugar, which requires more expensive machinery than the light portable mills, which, at a cost of $85 to $200 each, are adequate to extract syrup from the growth of a ten, twenty or thirty acre patch.

An interesting and suggestive experiment, made by Isaac Donavân, on his place at Kushla, eleven (11) miles from Mobile, on the Mobile and Ohio Railroad, is worthy of mention. He gathered from a field of five (5) acres planted in cane, an average yield of twenty-five (25) bushels of corn to the acre, from a planting between cane stalks in the rows; besides which he realized $245 from sale of about one-half the radishes grown in the furrows, the remainder being "ploughed in," with perceptible benefit to the growing cane.

Choice locations may be purchased in adjacent neighborhoods on favorable terms at $2 to $3 per acre, and extensive tracts of Government land at convenient distance from our populous city, are open to settlers, in quarter sections of one hundred and sixty (160) acres. The total cost of filing necessary papers to secure a title under the Homestead law of 1862, will not exceed fifteen ($15) dollars. Lands may be had within six (6) miles of the Mobile and Ohio and Mobile and Girard Railroads, which enjoy special grants of alternate sections along their lines; this privilege is, however, limited to the entry of one-eighth (⅛) sections of eighty (80) acres.

COTTON REGION OF ALABAMA.

Description of extent and soil—Increasing demand for cotton goods—A durable commodity—Equal to a bill of exchange—Profits of cultivating—Estimate of Solon Robinson—White labor—Negro labor, etc.

The cotton-growing section of Alabama lies next north of the timber region. It occupies a belt extending eastwardly and westwardly across the State, with widths of 102 miles, north and south, on the western line of the State; of 60 miles in the middle of the State, south of the Alabama river, between Selma and Montgomery; and of 60 miles, north and south, on the eastern edge of the State.

This belt of land, as regards soil and climate, is admirably adapted to the cultivation of cotton and provisions, and is the most healthy, rich, agricultural country in the Southern States.

It is interspersed with immense prairies. The soil is stiff, black, and so to speak, inexhaustibly rich; from two to twenty feet thick, resting on a bed of rotten limestone.

Perhaps there is not to be found a country possessing greater advantages for raising cotton, corn and provisions for the planter, combined with health for the laborer, white or black, than this famous cotton region of Alabama.

Thirty years ago much of this section was in little request, on account of the difficulty of procuring water, and from the belief that it was unsuitable for making cotton. Since then, water has been obtained in abundance, and of good quality, by excavating cisterns in the soft, underlying limestone, and by forming artesian wells by boring through the impermeable limestone to the permeable beds of sand and gravel resting underneath, at a depth of from 200 to 1,000 feet; and the soil generally, being formed of the decomposition of rotten limestone and organic matter, proved to be of extraordinary fertility. Hence this section has become, since that period, well settled by intelligent planters, who, before the war, as a class, were not excelled in wealth.

Such was the capacity of this country for raising cotton and provisions, that, with its acknowledged health, it became much sought for by planters. Prior to the war, plantations here commanded from $30 to $50 per acre. Now, rich cultivated plantations, convenient to rivers and railroads, may be obtained for from $5 to $10 per acre. With good cultivation, the land will make from 50 to 60 bushels of corn, or 800 to 900 lbs. of seed cotton per acre. The larger portion of it also will produce clover and all the grass families.

The Alabama River and the Tombigbee, with its affluents, the Warrior and Little Tombigbee Rivers, all navigable for steamboats for portions of the year, run through this section from north to south.

The Mobile and Ohio Railroad skirts its western boundary; the Alabama Central and the Western Railroad of Alabama traverse it from east to west; the Mobile and Montgomery Railroad runs nearly north and south through its middle section; and its north-eastern corner is traversed by the Mobile and Girard Railroad. Thus by means of rivers and railroads, easy access to market is afforded.

The assertion is ventured that there is not under the sun a more favorable spot in every respect, for the planter and farmer, than the cotton growing belt of Alabama. The soil is very productive, and, with proper cultivation, inexhaustible; the climate is genial; the health of the country for both white and black is good; and the market is accessible by rivers and railroads.

The capacity of Alabama for the growth of cotton is evidenced by the fact that she leads the other cotton-producing States, and in 1860, before her labor was interrupted, gave 997,978 bales to the entire number, 5,196,944, which were produced in that year.

It is universally conceded that the Cotton States of America have a soil and climate to produce the long staple cotton, possessed by no other country under the sun. It is from American cotton that all the fine cotton fabrics are made. India and China grow cotton, but it is the *short* staple that can not be worked without the staple of the Southern States to mix with it.

Should the yield of those countries reach ten millions of bales per annum, it would only increase the demand for American cotton to mix with it. The world has been so long educated to the use of cotton goods, and so much money has been invested in machinery to manufacture cotton fabrics, that the raw material will be raised in the Cotton States by one kind of labor or another. In 1860, it brought from eight to ten cents in gold. In Mobile, during the month of January 1875, it brought fourteen and a half cents in gold. With a few exceptions, all other agricultural products, both North and South, can be bought with the gold, at a little advance on prices in 1860. We may therefore safely say that the growing of cotton, to the hand, pays greatly more than that of any other agricultural product, North or South. Nor is it likely that anything will occur to change this state of things.

The demand by foreign countries for all other of our agricultural products depends upon the contingency of good and bad crops in those countries. If their crops are bad, there is a demand for our grains. If the seasons are propitious, there is no demand. But the prices of cotton do not depend upon the good and bad seasons of other countries. The demand for it is steady, both in this country and foreign countries; and while other crops may be sold for trash, this always brings gold. This steadiness of demand is the greatest stimulant of production, and makes cotton planting a certainty. A bad grain crop in Europe produces high prices for grain here, and farmers make fair profits. But a good grain crop there leaves no demand here, and farmers have no profits, and very often sustain heavy losses. This steadiness of demand not only stimulates production, but makes the raising of cotton the only safe agricultural business carried on by hired labor.

No other product will keep from year to year for better prices like cotton. The grains are attacked by weevil, flour becomes musty, meats become tainted, and other esculents speedily decay; but cotton will remain for years the same. The cotton sold in 1865, had been held over for four or five years, and there is no difference in the prices between that raised in 1859 and 1860 and that raised in 1864. While in many cases the wrappers had rotted so as to require new baling, the cotton itself was as good as new. On cotton, money can be borrowed on long or short time, and a bale of cotton is a bill of exchange on New York or London, as the holder may desire.

The profits of cultivating cotton are undoubtedly greater than that of cultivating any other production which has as yet entered certainly upon the field of agriculture. It is almost impossible to estimate accurately or even approximately the probable expenses of a plantation at this time, so great have been the changes in the cost of food, and so irregular the application of labor. But, the regularity which is now being resumed upon the plantations, and the rigid economy which the planter is learning to practice, justify the prediction that the profits of cotton planting may be hereafter calculated from statistics which ruled before the war. We have before us the statistics of a cotton estate of 4,200 acres (2,700 in cultivation), employing before the war 254 slaves (old and young) and 60 mules and mares, which yielded 331,000 lbs. of cotton and a large amount of other products. Of the 254 slaves, not more than 180 could have been working hands (an unusual proportion), which would give to each hand fifteen acres for cultivation.

The profits of this plantation as compiled from actual figures, by Mr. Solon Robinson, late Agricultural Editor of the New York *Tribune*, in 1848–9, may be condensed as follows:

CAPITAL INVESTED, $150,152 00.

INCOME OF THE FARM.

331,136 lbs. cotton, at 7 cts	$23,179 52
Bacon and other products sold	2,430 00
Increase of negroes, say 5 per cent. (value $89,000)	4,495 00
	$30,104 52
Annual expenses, as itemized by Mr. R., a full estimate, including freight and commission	$ 6,791 48
Net income	$23,313 04

or about fifteen and one-half per cent. In the estimate of expenses,

$2,090.54 are included for clothing, etc., which would not apply to the present system of labor.

Cotton is now being largely produced by white labor. The idea that the white man cannot labor in the cotton fields of Alabama as safely as he can in the corn fields of Illinois, has been exploded since the war. The Northern armies, composed largely of men from the extreme Northern States, and from every nation of the old world, settled on our coast, and penetrated and held the most malarious regions of the South during the late war, and numbers considered, did not suffer more than the Confederate armies opposed to them.

The prices obtainable for American and Indian cottons will show, to a certain extent, the relative estimation in which they are held by consumers. The quotations which follow are taken from the Liverpool Circular of June 17, 1869, and are for the grades most nearly comparable.

New Orleans Middling	11⅞d.
Mobile "	11¾d.
Upland "	11¾d.
Surats, Dhollarahs, fair	10d.
Surats, Dharwars, fair	9⅞d.
Madras, fair	9¾d.
Bengal, fair	8¼d.

American cotton is rapidly recovering its position of supremacy. In 1864, the actual total average weekly consumption of Great Britain was 30,852 bales, of which 3,052 bales only came from the United States. In 1868, the amount consumed weekly was 53,880 bales, of which 21,390 bales were American. If this can be done after supplying 18,000 bales per week for home consumption, with a social revolution going on, with the prostration resulting from a great war carried on on the cotton fields themselves, what can we *not* expect in the future, when free labor becomes abundant, and the vast extent of Southern arable lands are brought under thorough cultivation? The capacity of the Southern States for cotton raising is, virtually, only limited by the amount of available labor.

THE MANUFACTURING REGION OF ALABAMA.

Eligible Sites for Factories—Advantages of Situation and Climate—Profits of Cotton Manufacture—A Practical Illustration, &c., &c.

That portion of the State which is more generally spoken of as the manufacturing region is the broken country lying north of the cotton belt, and stretching as far northward as the Tennessee River. Alabama is so well watered that every portion is suitable for factories driven by water power. The timber region possesses splendid water courses, and the most salubrious and gentle climate. It offers as great advantages to manufacturers of cotton and wooden wares as any other part of the State. But that which is described as the manufacturing region possesses an advantage over all others, from the ease with which the water power is controlled, from its proximity to the cotton belt, from its adaptability to the growing of grain and wool, and to the fact that it embraces the mineral beds which furnish the fuel and material for the greatest variety and most profitable of factories.

This district, embracing the carboniferous, metamorphic and post-tertiary formations of North and East Alabama, is, in many portions, of great fertility, particularly along the banks of the numerous streams which water its many lovely valleys. Here we meet with every variety of surface and soil, and a climate of unsurpassed salubrity. The upheavals of former geological ages have elevated the rocks into hills and mountains of varied structure, and, as soil consists of disintegrated rock, its character is determined by these upheavals. Roup's, Jones', Murphy's and other lovely valleys of rich limestone land, contiguous to the immense coal and iron deposits of the State, need only a more judicious system of culture to render them equal in value to the most famous valleys of the world. Wheat, corn, grass, fruits, and every production of the temperate zone, flourish in this section. In the famous valley of the Tennessee, cereals and the grasses in all their variety and rich exuberance, flourish, and even cotton finds a genial soil.

No more eligible sites for manufacturing establishments can be found than is this section of Alabama. The rivers flowing from the mountains meet with many rugged barriers before they reach the low lands of the South. The soft cretaceous and tertiary formations admit of deep excavations, while the metamorphic and silurian rocks, with the millstone grit, resist the erosive action of the water, thus furnishing numerous falls, from which the current can be conducted economically and used for turning machinery of all kinds. The success before the war of the factories at Tuscaloosa, Scottsville, Prattville. Autaugaville, Tallassee, and of those of North Alabama, show what can be done, even under most adverse circumstances, and point unmistakably to the capabilities of the State in this direction.

This manufacturing region ot Alabama lies immediately upon the high road between New York and New Orleans. It is cut diagonally by three lines of railroad, connecting it with all the great cities of the Union.

The advantages offered by this region are so manifest that Northern men are compelled to admit them, and are making large investments in this section. Governor Sprague, of Rhode Island, who was then one of the largest manufacturers in America, delivered a speech in Charleston, a few years ago, in the course of which he said:

" I claim that the South, with its abundance of raw material, and with its genial climate, can produce finer yarns than any other country now engaged in manufacturing ; and to prevent the supply from ever exceeding the demand, so as to reduce the price below the present gold standard, I advise all cotton planters to employ their surplus money in the manufacture of yarns for the India market."

In the speech from which this extract is taken, Gov. Sprague pronounced the cotton factory at Augusta, Georgia, the finest in America. The Hon. Amos Lawrence, of Boston, another wealthy manufacturer, writing upon this same general subject, uses the following language:

" That the South will become a seat of various manufactures nobody can doubt. It seems to be formed by nature for that, not less than for agriculture. They have all the requisites in the greatest abundance. Your profits can be more profitably employed in manufacturing than in any other way. The more you can use your capital in employing the labor of your State in manufacturing its products, the more independent you will be, and the more wealthy your people will become."

The circumstances in favor of this region are,

1. Cheap and good building locations.
2. Cheap motive power.
3. Cheap material for building.
4. Means of procuring the cheapest machinery, combining all improvements for the production ot the required fabrics at minimum cost.
5. A cheap market in which to purchase cotton and supplies.

6. A good home market for the consumption of the fabrics manufactured.

7. An ample supply of cheap and efficient operative labor.

8. A favorable climate.

Location.—Factories established in this region would be convenient to the cities of New Orleans, Mobile, St. Louis, Cincinnati and Savannah. The Memphis and Charleston road crosses this region from east to west. The Alabama and Chattanooga road cuts it upon an air line from New York to New Orleans. The Selma, Rome and Dalton road skirts its eastern border. The Savannah and Memphis road links it to the Atlantic coast at Savannah. The South and North Alabama road divides it upon a line from Louisville to Pensacola. The Cincinnati Southern road, now building, will unite it by way of Chattanooga with Cincinnati, and the Mobile and Alabama Grand Trunk road will connect it on a down grade of only two hundred and fifty miles, with Mobile and the Gulf. These various railroads cross innumerable streams which afford ample, constant, cheap and convenient power. The sites for factories can be purchased at a small price.

Motive Power.—The motive power may be steam as well as water. The steam engine now moves three-fourths of the spindles in the world.

It has been brought to such a degree of perfection that it is problematical whether it pays any longer to excavate canals, water courses and wheel pits, and build expensive dams, in order to obtain motive power. Fifty pounds of coal will drive 1000 spindles and all the necessary machinery one hour.

Coal costs less in this region than at the North, and the prospects are that in a few years, with the working of mines already discovered and opened, it will cost much less. Wood is more abundant here than at the North, and costs less. But, admitting the price of coal and wood to be the same here as at the North, the advantages of climate are such that the fuel bills for a factory must be much less in Alabama than in New England.

Building Material, etc.—This region possesses as many advantages in the matter of building material as any point at the North, and more than most of them. Lumber costs less here than there; the greater portion of the expensive lumber employed in building factories at the North comes from our "piny woods." Brick can be laid in walls at about the same price as at other points in the country, and the necessary architectural iron work will cost no more. Skilled mechanics can be procured here at wages no greater than at manufacturing centres of the North, and probably at lower rates. It may, therefore, be reasonably concluded that the necessary buildings can be erected in Alabama at about the same cost as in New Jersey or New England—the probabilities are for less.

Machinery, etc.—The best quality of machinery for a factory of 7000 spindles will cost at Northern centres $105,000. To transport this amount of machinery to Alabama, including insurance, will cost $12,000, or 12 per cent. on the first cost. The advantage of the North over the South in the way of procuring machinery is not so great as at first might be supposed; for the European market, as a last resort, is open to the Southern manufacturer, and he can lay down English machinery, in Mobile, at about the same price the American machinery will cost in New Jersey or New England.

The Raw Material.—Cotton, suitable for the production of fabrics, can be procured in the Mobile and New Orleans markets at lower rates than at any other point on the globe. The cost per bale to the Northern and European manufacturer, in transportation, commissions, insurance, loss of weight and peculation, is estimated at $12 per bale. A factory in Alabama consuming six bales per day will make an annual saving on this one item of $21,600 over Northern and European mills, or nearly 9 per cent. on a capital of $250,000, a sum sufficient to purchase all the machinery for a factory of 1400 spindles. It would take only five and a half years to pay for all the machinery for a factory of 7000 spindles on the savings from this one item.

There is another advantage in the matter of procuring cotton, which manufacturers located in cotton producing regions have over those located at a great distance not to be overlooked nor underrated, viz: That of purchasing unginned cotton in small lots, directly from the producer. The small farmer who raises only a few bales cannot afford to gin his cotton when he can sell it at somewhere near its value, and is glad of the opportunity to dispose of it in the seed.

A Home Market.—The demand for the coarser grades of cotton goods would at once make Mobile and New Orleans the distributing points for cotton factories of this region. The cost of transportation, and other expenses incidental to the location of factories at a great distance from the cotton producing region, eat up the smaller profit per pound, and compel the manufacturer to make fine goods. A factory located in Alabama, and containing 7000 spindles, making from No. 12 to 20, will pay not less than 20 per cent. on a capital of $3,250,000, while one located either in New Jersey or New England, of the same capacity and making the same kind of goods, will hardly meet expenses. So well is this understood that many who were making these goods at the North, before and during the war, have since that event moved to localities nearer the source of cotton supply.

Operative Labor.—The experience of the Southern manufacturing companies prove that there is no want of material at the South out of which to make efficient operatives; that they are very quick to learn; willing and cheerful in an unusual degree. This labor can be procured 25 per cent. less than operative labor can be hired at the great centres of Northern manufacturing, and will be abundant and cheap as long as there are but few factories to employ it.

New England is obliged to depend upon Ireland and Canada to meet the scarcity of a home supply of operative labor, and it is found that this foreign element must be renewed as often as once every five or six years. The same source of supply is open to the South.

Climate.—The climate of Alabama affords great facilities for the manufacture of cotton cloth, and should not be classed among the least of our many advantages in this respect. The prevailing humidity of the atmosphere in the lower part of the State, and its mildness throughout the year everywhere present the very condition for manufacturing cotton. In colder climates this humidity must be produced, at times, through artificial means, and steam is employed to create the desired condition in the several apartments of a factory, when it often occurs that the atmosphere is so devoid of moisture as to seriously affect the product both in quality and quantity.

Profits.—The profits which may be made from the establishment of cotton factories upon the perennial streams of the manufacturing region of Alabama, may be readily understood, when we regard the vast wealth which has been added to the New England States by the hundreds of factories which have been fed in that distant region by the cotton of the South; and when we further consider that cotton goods of equal quality could be made at much less cost in the neighborhood where the raw material is grown, and where the cost of labor is so much less; and when we reflect that the water power of Alabama streams is never frozen, that the short winters require so much less fuel, that transportation and insurance, and charges of middlemen upon the raw material, is all saved, it is impossible to escape the conviction, that at no distant day every manufacturer will be compelled to transfer his labors to the immediate vicinity of the cotton fields.

As an evidence of the profits to be derived from manufacturing cotton in the South, attention is called to the report of Mr. Wm. E. Jackson, President of the Augusta (Georgia) Cotton Manufacturing Company, showing the operations of the Augusta factory, for the year ending June 13, 1868. Mr. Jackson says:

"It may not be out of place to give here the operations of the company for the past three years, or since the close of the war—viz: From June, 1865, to 13th June, 1868:"

Nominal balance 17th June, 1865			$562,583 09
Amount paid creditors due them in Confederate notes			35,775 22
			$598,358 31
Deduct depreciation in Hamburg and Columbia Railroad Stock		$ 26,625 00	
Deduct depreciation in various assets		466,284 05	
Deduct suspense account, St. Louis		4,703 71	—$497,612 76
True balance, profit and loss account, 17th June, 1865, in United States currency			100,745 55
Gross earnings from 17th June, 1865, to 13th June, 1868		932,906 57	
Expense account	$ 78,300 61		
Repairs	33,386 72		
Taxes	244,479 81		
New machinery	92,686 76		
Dividends paid	360,000 00	—808,853 90	
Add to profit and loss account			124,052 67
			$224,798 22
Bales goods made			23,545
Aggregate sales			$3,765,301 80
Aggregate wages paid			622,280 15
Average yards per loom per day			45,090, 100
Average number of hands employed			578

"It may not be uninteresting to some of our present stockholders to state what has been accomplished in the past ten years. It will be remembered by those who were among the original purchasers, that the property was purchased of the city for $140,000, on ten years' credit, with interest at seven per cent. payable semi-annually, and one-tenth of the principal annually, the purchasers paying in as commercial capital $60,000. This amount, in consequence of the dilapidated condition of the property, was almost entirely expended in the first two years, in repairs rendered necessary by the then condition of the property. We have, since the purchase, paid for the entire property without calling on the stockholders for another dollar; added largely to the property by purchase and building bought about $100,000 worth of new machinery, increased the capital to $600,000, by the addition of a portion of the surplus; paid dividends regularly, and have now a property worth the par value ($600,000 in gold)."

Here we find, in the city of Augusta, a factory which consumes three thousand bales of cotton, giving employment to 578 laborers; paying out wages, which are spent at the stores in the city, to the amount of $622,280; paying two semi-annual dividends of five per cent., or *an annual dividend of twenty per cent.;* making a net profit of $107,534 semi-annually, or of $215,068 annually, upon an original investment of $140,000; and, besides, paying twenty per cent. annual dividends, carrying to the credit of profit and loss the annual amount of $95,068. In ten years, after deducting the losses of the war, the profits of the Confederate period having been lost by the subsequent depreciation of assets, we find that this establishment not only paid for itself, but has increased its gold value from $140,000 to $600,000.

THE MINERAL REGION OF ALABAMA.

Situation and extent—The several Coal fields—The Iron deposits—Railroad conveniences—Value of mineral land—Limestone—Marble—Granite—Gold—Copper—Peculiar value of the Coal and Iron, etc.

The mineral region of Alabama lies mainly within the counties of Shelby, Jefferson, Bibb, Walker, Tuskaloosa, Blount, St. Clair, Calhoun, Talladega, Randolph and Cherokee, embracing an area of say 15,000 square miles, of which 5,600 square miles show abundant indications of bituminous coal of every quality, including cannel, splint, black and ordinary bituminous.

This mineral region is the extreme southwestern end of the great Appalachian chain of mountains which bears in New England and the Atlantic States those formations from which are received the lenticular, fosilliferous and other locally named hematite ores of iron, and which in Alabama culminates in that remarkable deposit of rich iron ore known as Red Mountain, which extends in unbroken continuity and unequaled massiveness (as to mineral deposits) from above Gadsden, on the northeast, to near Tuscaloosa, on the southwest, forming a solid mass of iron ore overlaid with the small quantity of soil which has resulted from the disintegration due to natural causes acting upon the original surface formation of sandstones and underlaid by silurian limestones which have been pressed up through the superior strata of coal, iron and sandstone disrupting them, and bringing them, each with the other, into the most convenient possible juxtaposition for their joint utilization by man.

The cabinet collected by the Elyton Land Co., which has been made up entirely from the immediate vicinity of Birmingham, contains already some seventy-five specimens of ores of iron, lead and antimony; of mineral coal of various qualities; of building stone of unsurpassed excellence, and of limestone of extraordinary richness, as to product in the kiln. All these material elements of wealth abound in every direction around Birmingham, the point of junction of the net work of railroads which cut the mineral region in every direction. The iron ore and limestone is found within the corporate limits of the city, and the coal, sandstone, galena and antimony within from two to fifteen miles of the centre of the city.

The valley in which Birmingham, the centre of the mineral region, is situated, is now bisected by two trunk lines, and will soon be penetrated by six other main lines of railway. Those now in operation are the South and North Alabama—an important link in the line from Louisville to Pensacola, and the Alabama and Chattanooga, from Chattanooga, Tennessee, to Meridian, Mississippi—a part, and an important part, of the interior line of railway communications between New York and New Orleans.

The other roads soon to be built into this mineral region are:—First, the road from Atlanta, Georgia, to Birmingham, and its extension westward, to a connection with the Great Southern Trans-Continental Railway, at or near Marshall, Texas. Second, the Savannah and Memphis Railroad, forms a connection with the Georgia and South Atlantic system of railroads at Opelika, Alabama, northwesterly through Birmingham, to deep water navigation on the Tennessee river at Pittsburg Landing. Third, the Mobile and Alabama Grand Trunk Road, from Mobile in a northeasterly direction, to the centre of the mineral region of the State at Birmingham. And, fourth, the Ashby branch of the Selma, Rome and Dalton Railroad, which will make the shortest and most practicable connection between Pensacola and the coal and iron mines of the interior.

At the intersection of these various railroads, the City of Birmingham has been founded (under the auspices of the Elyton Land Company, directed by James R. Powell, the President of that Company). It grew within eighteen months from the building of the first house to a permanent population of about 4,000, representing every department of active life, and prepared to supply the wants of consumers in every branch of trade.

Coal.--The coal fields proper are the Warrior, with an area of 5,000 square miles; the Cahaba, with an area of 300 to 400 square miles; and the Coosa, with an area of 250 to 300 square miles.

The carboniferous rocks embrace upwards of 6,000 square miles of coal measures, furnish bituminous coals of unsurpassed excellence in abundance, and give promise of the cannel and splint varieties in several of their openings.

In the local reports made on portions of the two principal coal fields of the State, viz: the Warrior and Cahaba, the number of seams of coal mentioned as coming under observation is seventeen, and an aggregate thickness is assigned them of fifty-seven feet, but no shafting yet done, having penetrated to a greater depth than one hundred feet in the strata of any one of the three--Warrior, Cahaba or Coosa coal measures—we may confidently look for twice or thrice that development when their entire strata are penetrated.

The Alabama coal is excellent for generating steam. Professor Tuomey, late Geologist of the State, gives the following analysis of the Alabama coal, in comparison with the bituminous coal of Virginia:

Clover Hill, Va.—Carbon, 76.67; Volatile matter, 16.67; Ashes, 9.87; Hydrogen, 4.23.

Black Heath, Va.--Carbon, 80.28; Volatile matter, 10.27; Ashes, 9.26; Hydrogen, 4.08.

Powell's, Va.--Carbon, 86.84; Volatile, matter, 8.76; Ashes, 4.60; Hydrogen, 4.80.

Alabama coal.—Carbon, 80.96; Volatile matter, 12.96; Ashes, 6.08; Hydrogen, 5.18.

The value of coal for generating steam depends on the amount of carbon and hydrogen it contains. The preceding analysis shows that the Alabama coal possesses more of hydrogen than three, and more of carbon than two of the Virginia coals, considered the very best for steam purposes. By the following table, drawn by the celebrated Geologist, Sir Charles Lyell, and published in the Journal of the Geological Society of London, it will be seen that the Alabama coal, if not superior, is not inferior to the Maryland coal, noted as the best in the United States, by Professor Walter R. Johnson, in his report to the Navy Department:

NAMES OF COALS.	Carbon.	Volatile Matter.	Ashes.
Alabama Coal	80.96	12.96	6 08
Pennsylvania Coal	62.80	12.80	6.20
Maryland Coal, George Creek	70.76	16.03	13.22
do Frostburg	74.38	15 13	10.34
Virginia Coal, Black Heath	58.79	22.57	8.64
Virginia Coal, Midlothian	53.33	33.25	14.14

The Alabama coal must therefore rank in the first class of fuel for producing steam. In fact, experiments have proved its superiority over all others.

Coal is mined in the Warrior coal field by citizens, who simply dig up the coal from the surface as they would clay or sand, without drifting or sinking shafts; it is hauled by wagon to the neighboring towns, and sold at from $4 to $6 per load of 2,500 lbs. Some of the native miners say they can cut, on an average, eight tons of coal per working day, which is 18¾ cents per ton, or ¾ of a cent per bushel. That this estimate is not extravagant, is proven by the fact that laborers employed in building the railroads through this region make a daily average of more than six cubic yards of material removed in excavating, and that the ordinary clays of this mineral region are more compact and difficult to work than the regularly stratified seams of coal.

The distance from "out crop to out crop" of the Warrior coal field, as estimated by the South and North Alabama Railroad, is about fifty-eight miles, within which distance this road cuts in the out crop five distinct seams of coal, aggregating in thickness nineteen feet four inches of workable coal, and when it is remembered that these five seams are the upper strata of the series, and that in Pennsylvania, Ohio and Indiana, as in Great Britain, it is certainly determined that (within certain limits) the greater the depth the thicker the veins of coal, we may safely estimate that the Warrior Coal Field alone will afford 3,000,000 of acres of easily attainable coal, yielding at least 50,000 tons of coal per acre, or 150,000,000,000 tons. But in view of the facts that the supply both of coal and iron is practically inexhaustible, representations or calculations as to a want of the raw material to supply any number of factories in Jones' Valley are but a waste of time.

Iron.—No State possesses such extensive beds of iron ore as Alabama, so easily worked, of such excellent quality or so accessible to market. The chief bed of iron is in the Red Mountain and its spurs, commencing at a point twenty-five miles east of Tuscaloosa, and running uninterruptedly in a northeast direction near Birmingham and Ashville, to Gadsden, a distance of nearly one hundred miles, and in patches in Cherokee county, on to the Georgia line. The Alabama and Chattanooga Railroad runs parallel to and directly at the base of Red Mountain, furnishing the most convenient arrangement for developing this interest. Crossing as it does, the line of the South and North Railroad, at Birmingham, which runs directly through both the Warrior and Cahaba coal fields, the necessary elements in the economical manufacture of iron, coal, and the rich ores from the Red Mountain can be as cheaply brought together as in any other region of the United States.

The ores of Red Mountain have yielded under analysis (taking the mean of several tests made from ores from different localities and by divers analyses) over fifty per cent. of metallic iron. At the Jefferson Iron Company's works, five miles east of Birmingham, where this ore is worked exclusively, the yield at the furnace is fifty-eight per cent. of metallic iron, with a minimum cost of production, from the ease with which the ore is reduced. The ores found native in this region are red hematite, fossilliferous, clay iron stone, brown hematite, fibrous brown hematite or needle ore; pipe ore, gray ore, and in the Warrior coal field, black band ore. Specimens of magnetic ore are also found in the same locality. The hematite ores are exposed on the northeastern slope of Red Mountain for an actual thickness, at various points, of from fifteen to thirty-five feet of solid ore; and it is believed, from the configuration of the ground and its geological features, that this thickness will be shown by development to be not less than one hundred feet, which would give from each acre of iron land a yield of 378,000 tons; then when we estimate the area of this iron producing region as ninety miles long (the lowest estimate of its length) and only one mile wide, we have 22,770,800,000 tons.

The total production of iron in the United States in 1871 was 2,100,000 tons, requiring a consumption of ores, on an average of thirty-three per cent. of yield, of 6,300,000 tons. Taking the production of 1871 as a criterion, and allowing for a proportionate increase in the demand of iron for the several purposes in civilized life, we find in Red Mountain alone, at the low estimate of three tons of ore to one ton of iron, an ample supply for all the demands of the whole United States for *three thousand years.*

Besides the wonderful deposits of Red Mountain we find, west, northwest and north of Birmingham, on the surveyed lines of the western extension of the railroad from Atlanta to Birmingham and of the Birmingham and Pittsburg Landing Railroad, very extensive deposits of iron ores of various qualities, situated so immediately contiguous to the coal of Warrior coal field that in some cases both ore and coal can be mined from the same pit. With these ores, and in their immediate vicinity, are found veins or strata of bituminous coal varying from one to seven feet in workable thickness, and of a quality unsurpassed in the known world, especially for the manufacture of iron, coke having been made from some of the coal which weighs forty pounds to the bushel (being twenty-five per cent. over the standard weight) and almost entirely free from sulphur or phosphorus.

The cost of making pig iron in and near this region of average quality is calculated by one of the most experienced iron masters at $18 75 per ton of 2,200 lbs. At Shelby Iron Works, the cost is estimated (the proprietors declining to furnish items of cost) at $18 50, in both cases charcoal being used at a cost of about 10 cents per bushel, delivered.

The charcoal to make one ton of iron costs, say $16; the bituminous coal for same will cost, say at $2 50 per ton, $3 75. The relative value of pig iron made with mineral coal, as compared with charcoal iron, is about 80 per cent., but the increased production of bituminous coal iron over charcoal iron with the same original outlay, is about 26 per cent. Having, then throughout the whole length of Roup's, Jones' and Murphries' valleys abundant supplies of iron ore on the southeast of limestone forming the whole basin of the valleys, and of bituminous coal extending for about sixty miles on the west, northwest and north, there must be found in these valleys many localities where iron can be manufactured at a cost of production less than in any other section of the Union.

Prior to the war there was made in the United States, about eight hundred thousand tons of iron, which cost the consumers sixty millions of dollars. This much, and five hundred thousand tons more, of foreign iron were consumed in the United States. A total of one million three hundred thousand tons consumed at a cost to the consumers of over eighty-seven millions of dollars. Of this, there was consumed in the Southern States one half—forty millions of dollars worth. They produced comparatively but little, say ten millions of dollars worth. This left thirty millions of dollars to be annually paid by the South for iron *made by others.* It was paid out of the cotton crop, directly or indirectly. The cotton crop was equal to one hundred and fifty millions of dollars. Of this, thirty million went to pay for iron alone.

Lead.—Galena metallizing sulphate of barytes occurs in this formation, in Jones' and Talladega valleys. Galena yielding 80 per cent. of lead, with a trace of silver and sulphate of baryta are found within two miles of the centre of Birmingham.

Copper.—In the Metamorphic rocks in Talladega, Clay, Randolph and Coosa counties, between beds of talcose, mica, and chlorite slates, intersected by dikes of trap, occur beds of cupriferous iron pyrites of two-fold interest, viz: sulphur and copper.

One of these, which has been explored to a depth of 120 feet by shaft, and 300 feet by adit level, has furnished appreciable quantities of copper, sulphur, bluestone, copperas and mineral paint.

This bed is fourteen feet thick in ore, of which the following is an analysis of an average sample:

Copper	2 30
Iron	37 46
Sulphur	43 22
Arsenic	2 46
Silica and moisture	14 56
Total	100 00

Gold.—Cherokee, Calhoun, Talladega, Clay, Randolph, Coosa, Tallapoosa and Chambers counties have all had their gold mines and all contributed their quota of gold to swell the large amount that has gone forward to the mint, from Alabama. The mines on Talladega creek, in Talladega county, and at Goldville, Tallapoosa county, are at work, now adding to the many millions of dollars that have been produced in this eastern portion of the State, and will continue to be brought forth, for the gold is found here and is now being obtained from veins of quartz that intersect a talcose mica slate country of great extent.

Other Minerals.—Marble of various qualities and fine texture is found almost everywhere, while the whole of the original surface formation, whenever found "in position," is a pure white sandstone, perfectly fire-proof, regularly stratified, and when first exposed very easy to work to shape and dimension, though after exposure to atmospheric action it becomes so hard as to turn the edge of any tool used on it. This region, also, affords limestone, producing (in each of two kilns in Birmingham) about 98 per cent. of pure white lime, particularly suited for fine inside work. Hydraulic limestone is also found in the same vicinity, and fire clay, suitable for making fire brick, is a characteristic feature of the coal measure. Roofing slate has been found in Talladega and Coosa counties; soapstone and magnetic iron are in Chambers and Tallapoosa counties; plumbago, in Tallapoosa county; gypsum and phosphatic limestones, in Jackson county; hydraulic limestones, in Lee and Shelby counties; lithographic stone, in Talladega and Jefferson counties, and burrstone, in Macon county.

THE STOCK AND AGRICULTURAL REGION.

Peculiar Advantages of this Region.—Testimony of English visitors.—A healthy and profitable field for the white man.—Cheap prices.—Rich soil.—Mild climate.—Variety of crops.—Convenient to the markets of the world, &c., &c.

While every portion of Alabama is adapted to agriculture and stock raising, the more northern and broken region is especially favorable to the health of stock and the growth of those cereals, the certainty of whose production is essential to the welfare of a State. This region covers the mineral lands with mountains and dales, includes the narrow but fertile valley of the Tennessee River, and stretches beyond that river to the northern boundary of the State. The advantages afforded by this region are:

1st. Lands capable of producing, not only everything necessary for man and beast, but most of the luxuries of life. Here cotton, sugar, rice and tobacco can all be grown, or purchased at low prices, and on a term of credit sufficient to enable an industrious man to pay the purchase-money out of the product, without undue stint, and within a short period.

2nd. The mildness of the climate is such that labor may be continued throughout the year, interrupted only by rains, not more frequent nor of longer duration than in the North or in England. The practical Northern farmer will readily perceive the great advantage of this as contrasted with his climate, where, perhaps, farm work cannot be carried on more than about eight months out of the twelve.

3rd. This region of country, situated midway between the tropics and the severe climate of the Western States, with its generous soil, not only yields larger returns to the husbandman with less labor, but secures to him health. The prevalent opinion is that, so far as health is concerned, the opposite of what is here asserted is the fact. But reference to the vital statistics of the United States, which are prepared by authority of the Government, will show that this statement is true. The general average of all the United States shows deaths at the rate of $12\frac{80}{100}$ per 1000, while the Southern States show only $12\frac{3}{100}$ per 1000, thus proving that, so far as health is concerned, the rates both in North and South is 1203 as against 1280, those figures representing the respective mortality in one year out of a population of 100,000, equal to a difference of over 6 per cent in favor of the South.

4th. The variety of crops which can be raised is such as to enable the farmer to find employment for all classes of labor, including women and children, thus enabling him to select such crops as may suit his peculiar circumstances.

5th. The means of cheap education and religious instruction are abundant.

In the autumn of 1874, Abram Murdock, Land Agent of the Mobile and Ohio Railroad, formerly President of that road, visited England, with a view of inducing immigration to Alabama and Mississippi, and of planting colonies upon the lands of the road he represented. Upon his return to Mobile he was accompanied by two Englishmen, George Morris, delegate and member of the Executive Committee of the National Agricultural Laborers' Union, of Great Britain, and W. J. F. Norfolk, whose brother is Secretary of the Mississippi Valley Society, of London.

Mr. Morris, is a practical agriculturist. His visit to this region was not that of a speculator or of an enthusiast. It was that of a practical laboring man, dictated by an earnest desire to select a field of labor for the crowded and poorly rewarded agriculturists of his country. After visiting various portions of the agricultural regions of the Gulf States, he submitted a report of his observations, Dec. 29, 1874, to a joint meeting of the Mobile Board of Trade and the Mobile Branch of the Mississippi Valley Society. He said:

"We arrived in this city on the night of the 7th inst., and left for our journey up the railroad on the morning of the 11th. We were gone fourteen days, visiting every town on the main track, and on its branches, and giving time to each in proportion to its size and attractions.

"Considerable opportunity was thus afforded me in making inspection of the very various sorts of lands in the district; and, believing them to be capable of producing all the necessaries of life—and some of the luxuries, too—with less expenditure of labor than would be required in such climates as England, I would say, from my own practical experience of farm work, that intelligent labor on those lands could acquire, not only a good livelihood, but also, in a few years, a competency.

"It is my firm conviction, from my knowledge of the obstacles barring the way against the British agricultural laborers becoming tenant-farmers even on a small scale, much less freeholders of land in any quantity whatever, that such a hope is all but incapable of realization in my country. It appears to me, however, that there is no difficulty here in the way of a man of the usual industry, intelligence, economy and thrift necessary in my country for a man even to get the barest subsistence for himself and family, raising a home, and in the course of but a few years turning up the furrows of his own freehold. The truth of this is patent when I say that land here may be bought in any desired quantity at from four shillings to five pounds per acre for the freehold, the price varying, of course, with the quality of soil, situation of the land, improvements made, buildings erected, etc. In the present utterly depressed state of things, occasioned by the unreliableness of colored labor, lands may be purchased for less money absolutely for the freehold than has been expended upon clearing, fencing and improving them. Moreover, such easy terms of credit for payment of the price of such lands are given, that there can be no question of the ability of such a farm laborer as I have described above, to pay such price out of the surplus products of his land.

"I came here with the opinion that the healthy existence of white people in this climate was precarious and uncertain, arising from the very prevalent impression with us that the weather being excessively hot, and attacks of malaria, yellow fever and epidemics being of frequent occurrence, it would not be easy for people reared in the British Islands to have and keep their health, or to labor without discomfort for the usual term of man's natural life. From extensive enquiry, (I may say from every single individual to whom I have been introduced,) and from general observation of the outside appearance of the white population, as well as from the best medical and social testimony, combined also with the governmental vital statistics of the United States, and from the fact, proved to me incontestibly, that as nearly as possible 60 per cent of the whole cotton crop raised in Alabama and Mississippi is the result of white labor, and of white labor only, it is proved conclusively to my mind that my own original opinion with regard to climate, prevalence of unpreventible disease, and inability of white folks to work in the fields, was utterly erroneous and groundless, and that the common notions on the same subject of my fellow-countrymen are equally based on misrepresentation and misconception, and erroneous in fact."

Mr. Norfolk said: "In a few words, I may state the practical conclusion at which I have arrived. God has done more abundantly for your country in all ways than for any other probably in the whole civilized world, and man has his part now to do."

Mr. Charles Nordhoff, writing in 1864, and before the emancipation of the Southern slaves had become a fixed fact, made use of the following language in a pamphlet designed to attract the attention of the white agriculturists of the North to this region of the South:

"*Is it no matter to workingmen that they are thus driven out and kept out of the largest, most fertile and pleasantest part of the Union,* by the slave labor system, which there robs them of work, and attacks their rights? In the mild climate of the border Slave States, the seasons are longer, the productions more varied; trades, which can be pursued in the North during only eight or nine months, may be carried on there all the year round; food is or ought to be cheaper; the workingman and his family need fewer and less costly clothes; in many ways the conditions of life are easier, for the mechanic and laborer as well as the farmer, than in the colder North. *But that great region the slave-masters closed against the free workingmen*, and preserved for themselves and their slaves.

"The climate is not too hot in any of those States for white men and women to labor in the fields. Governor Hammond, of South Carolina, says: 'The steady heat of our summers is not so prostrating as the short but sudden and frequent heats of Northern summers.' White men work on the levee in New Orleans in midsummer, and have the severest labor put upon them at that. He who writes this has rolled cotton and sugar upon the levee of New Orleans in the month of July, and screwed cotton in Mobile Bay in August. Dr. Cartwright, the great apostle of slavery, rightly remarked: '*Here in New Orleans the large part of the drudgery—work requiring exposure to the sun, as railroad making, street paving, dray driving, ditching and building—is performed by white people.*'

"In Alabama, by the census of 1850, sixty-seven thousand; in Mississippi, fifty-five thousand; in Texas, forty-seven thousand *white men, non-slaveholders, labored in the fields*, and took no hurt. Cotton was cultivated in Texas, before the war, with perfect success, by white men; the Germans managed even to raise more pounds to the acre, pick it cleaner, and to get a higher price for it, than the neighboring planters. Olmsted mentions an American in Texas who would not employ slave labor, and who, with white men as his help, 'produced more bales to the hand than any planter around him.'

"The mortality reports of the census show that the Southern States are not peculiarly unhealthful. In Alabama, the deaths, per cent., were less than in Connecticut; in Georgia they are 1.23 per cent.; in New York, 1.22; in South Carolina they are 1.44 per cent.; in Massachusetts, 1.76, which is precisely the same as in Louisiana.

"*Nothing, therefore, has kept free white workingmen out of these States—nearer to the great markets of the world, having abundant mineral wealth, and in every way more favorably situated than the cold Northeast, and the far away Northwest—except the fatal competition of the slaveholders.* To avoid that, millions of workingmen, native and foreign born, have removed to the Northwest, until at last the tide of emigration has even trenched upon the inhospitable desert, and has spread beyond the extreme limits of arable land, and far beyond the profitable reach of markets. The Northwestern farmer has burned his corn because he could not afford to send it to the distant seaboard;—*was it no loss to him that slavery kept him out of the fertile fields of Virginia and North Carolina?*

"Even had slavery remained in full vigor, the time had come when free labor, seeking new outlets and greater opportunities, would have pressed hardly upon it. If slavery is swept away, free workingmen will hereafter have opportunity in the South, and to all that great region a boundless future of wealth and prosperity opens up. The abandoned farms, the mouldering villages, the empty cottages, will once more be filled with the busy and cheerful hum of the labor of freemen.

"Their cunning will repair the waste of unskilful slave labor; their ingenious toil will redeem the barren fields of Virginia and other Southern States. The tide of emigration, sweeping in that direction, may repeat in the South the marvelous results which it has accomplished during the last twenty-five years in the Northwest; Virginia will be another Minnesota, North Carolina a new Iowa, and in Tennessee will be repeated the story of Ohio."

In addition to what is here said by Mr. Nordhoff, we would call attention to the following remarks made by Mr. Edward Atkison, a cotton manufacturer of Massachusetts, in a pamphlet prepared at the instance of the American Geographical and Statistical Society, of New York:

"It is perhaps needful that we should induce emigration from southern Europe before the question of the cultivation of large crops in southern Alabama, Mississippi and Louisiana will be fully settled. But there is a broad tract of cotton country lying in Georgia, South Carolina, Tennessee, northern Mississippi, Alabama and Arkansas, the land of farms, not of plantations, on which a million and a half bales of cotton have been produced in a given year, of which a very large portion was produced by white labor, even in the days of slavery. On this section we shall soon see an enterprising community of small farmers, not raising cotton by the plantation system, but on small allotments, under the personal supervision of the owner, himself working in the field. Here we shall soon see Northern economy—the seed no longer wasted, but the rich oil which composes twelve and a half per cent. of its weight expressed and turned to a useful purpose; the cake, the richest food for cattle known, fed out to stock; the land no longer exhausted by the waste of seed, but the manure returned, and the cotton-farm growing richer instead of poorer year by year. And as the population becomes more dense, and the towns and villages will increase, and manufactories will become established; and, before many years, we may confidently expect to see the manufacture of the coarser cotton cloth transferred to the South and West, nearer to the place of growth of the cotton, while the North, with its greater skill and more abundant labor, will undertake the finer work which we have not yet drawn away from England.

"Eight to ten acres to the full hand is the limit beyond which the picking force of the plantation can not be carried, but upon the prairies and hills a dense population will, in a few years, be gathered; then we shall find the cotton farmer cultivating twenty, thirty—aye, even fifty acres to the hand, with the certainty that he can call to his aid in the picking season the entire force required, who will be employed during the rest of the year in all the various industries of civilized life."

THE ALABAMA RAILROAD AND WATER SYSTEM.

The Latitudinal Roads—The Longitudinal Roads—Total length and value—The River System—The Mobile River and its arms—Professor Tuomey's description of the river formations.

The Railroad System.—No State possesses a more perfect railroad system than Alabama.

The Latitudinal roads which connect her with the Atlanta coast on the one side and with the Mississippi River on the other, are: 1. The Memphis and Charleston Road. This road, passing eastward from Memphis, skirts the Tennessee River, touches all the counties of the fertile Tennessee Valley, and unites at Chattanooga with the net-work of roads which branch thence towards Atlanta, Louisville and Knoxville. 2. The Western Road of Alabama, which, connecting West Point and Columbus (Ga.) by two branches at Opelika, passes through Montgomery and terminates at Selma. 3. The Alabama Central Road, which unites with the former at Selma, and passes westward tc Meridian, Mississippi, there connecting with a line due west to the Mississippi River. 4. The Montgomery and Eufaula Road, which connects Montgomery with Eufaula, upon the Chattahoochee River, a part of what will be a trunk line, which will eventually connect Central Alabama with the harbor of Brunswick. 5. The Atlanta and Western Road, which is to be built due westward from Atlanta, Ga., to Birmingham, Ala., connecting the heart of the mineral regions with the growing city of North Georgia. It is proposed that this road shall be continued westward to Aberdeen, Miss. 6. The Savannah and Gulf Road, which is to be continued westward from Flint River through the most southern tier of Alabama counties to Mobile. The Vicksburg and Brunswick Road, which begins at Eufaula and is designed to stretch westward, directly to Meridian.

The Longitudinal roads which bisect the former, are: 1. The South and North Alabama Road, which connects Nashville, Tenn., by the shortest line with Montgomery. 2. The Mobile and Montgomery Road, which connects Montgomery with the Gulf at Mobile, and by a branch from Pollard with Pensacola. 3. The Alabama and Chattanooga Road which stretches from Chattanooga southwestwardly to Tuskaloosa and Meridian, Miss., uniting at the latter place with the Mobile and Ohio Road, which connects Mobile with St. Louis. 4. The Savannah and Memphis Road, which, beginning at Opelika, Ala., at which point it connects with the Georgia roads leading to Savannah, stretches northwestwardly to Birmingham. 5. The proposed continuation of the Savannah and Memphis Road, towards the Tennessee River, to be known as the Elyton, Corinth and Tennessee River Road. 6. The Mobile and Girard Railroad, which stretches from Columbus, Ga., southwestwardly to Troy, and is designed to be pushed through to Mobile. 7. The East Alabama and Cincinnati Road, now constructed from Opelika to a point north of Lafayette, and destined ultimately to cross the Tennessee River at Guntersville and unite with the Tennessee system of roads. 8. The Selma and Gulf Road, designed to connect Selma with Pensacola. 9. The Selma, Rome and Dalton Road, connecting Selma with the Atlantic and Western Road, at Dalton, Ga. 10. The Mobile and Ohio Road, connecting the City of Mobile with St. Louis, Mo. 11. The Mobile and Alabama Grand Trunk Road, designed to connect Mobile, by an air line, with the mineral region at Birmingham. 12. The Nashville and Decatur Road, which is an extension of the South and North Road, from the Tennessee River northward to Nashville. 13. The New Orleans and Selma Road, constructed a short distance, and designed to unite Selma and New Orleans by an air line. 14. Selma, Marion and Memphis Road, constructed from Selma northwardly, to the Warrior River, and designed to stretch directly to Memphis.

Statement showing length and value of Alabama Railroads.

RAILROADS.	MILES.	ASSESSED VALUE.
Alabama Central	81	$ 960,830 00
Alabama and Chattanooga	244 ¼	3,930,195 00
East Alabama and Cincinnati	20	211,410 00
Montgomery and Eufaula	80	937,500 00
Memphis and Charleston	151	2,200,800 00
Mobile and Girard	83	819,860 00
Mobile and Montgomery	178	2,263,600 00
Mobile and Ohio	75.1	1,211,600 00
Mobile and Alabama Grand Trunk	56 2-5	346,750 00
Nashville and Decatur	27	405,000 00
Nashville and Chattanooga	26 ½	339,534 00
New Orleans and Selma	20 8-10	212,350 00
Savannah and Memphis	41 7-10	431,500 00
Selma, Marion and Memphis	48	420,250 00
Selma and Gulf	40	333,800 00
Selma, Rome and Dalton	171..4047	2,051,175 00
South and North	182 42-100	2,304,880 00
Southwestern, of Georgia	¾	8,500 00
Tuskegee	5 ⅓	39,700 00
Western	160	2,053,610 00
Vicksburg and Brunswick	21	262,600 00
Totals	1714 21-1056	$21,745,444 00

These roads cross Alabama in every direction, connecting her cotton and mineral lands by direct routes with Savannah, Mobile, Pensacola, New Orleans, Memphis, St. Louis, Nashville and Louisville, Cincinnati, and by the way of Chattanooga, with all the great cities of the East. There are but few counties in the State which are not touched by railroads, and those few are within a day's journey of a railroad.

The Water System.—The navigable rivers of the State are the Tennessee, bordered by eight counties, and the best portion of whose valleys lies in the State; the Alabama and its tributaries; the Tombigbee, Black Warior, and the Coosa. The Alabama is navigable for four hundred and eighty miles to Montgomery, and at high water to Wetumpka, at the mouth of the Coosa River, twenty miles higher. It passes through and bounds eleven counties. The Tombigbee is navigable to Columbus, Mississippi, and passes through and bounds eight counties. The Black Warrior is navigable to Tuscaloosa, and waters two counties. The lower part of the Coosa is navigable from its mouth to Wetumpka, and the upper part from Greensport to Rome, Ga. One hundred and eighty miles of its course between Wetumpka and Greensport, as its bed passes over the strike of the rock, are not navigable—being a river navigable at both ends and not in the center. Its navigable waters bound and water five counties. The Chattahoochee is the dividing line between Georgia and Alabama. This river is navigable as high up as Columbus, Georgia, and bounds three counties in Alabama. The heads of the Choctawhatchie and Escambia rivers of Florida give navigation to three counties. Thus it appears that thirty-two out of the fifty-three counties of the State are either bounded or intersected by navigable rivers, regarding the Mobile and Tensas rivers as really a part of the Alabama. If we take into consideration the counties that nearly, but do not actually touch her navigable streams, it will appear that two-thirds of the State enjoy the benefit of navigable rivers.

The Tennessee River, which waters a most fertile section of North Alabama, from one side of the State to the other, flows northward, after reaching the westward boundary, and empties its waters, with the Ohio, into the great highway of Western commerce. At present the shoals near Florence present an obstacle to the continuous navigation of this river. But this obstacle will be soon removed, and by the assistance of the United States Government, the States of Tennessee and Alabama will soon see the Tennessee River opened to navigation from Knoxville to the Ohio. The curve which is made by the Tennessee brings it within thirty or forty miles at the nearest point (Gunter's Landing) to a point upon the Coosa River—Gadsden.

The Coosa River is navigable from Rome, Ga., to Greensport, Alabama, a distance of 160 miles. Below Greensport it is interrupted by shoals, which prevent a continuous navigation, just as the Tennessee is obstructed by the Muscle Shoals. The removal of obstructions in the Coosa River, or rather the surmounting of obstructions, by slack-water navigation, was brought to the attention of the country by President John Quincy Adams. Since then it has failed to elicit public consideration, until within the last ten years. Just before the war a survey was made which demonstrated the entire feasibility of rendering the Coosa navigable, and of connecting it with the waters of the Tennessee by a short railroad of thirty or forty miles, or by a canal, thereby giving a continuous and short water line of communication from the hills and valleys of East Tennessee on the one side, and from the Ohio on the other, to the waters of the Gulf at Mobile.

Professor Tuomey, late Geologist of the State, and Professor of Geology and Natural History in the University of Alabama, in his imperfect sketch of the geological formations of Alabama, gives us an account of her rivers, which, although brief, is worthy of notice as substantiating what has been already said in this connection. After alluding to the anomalous course of the Tennessee river, and to the fact that its complete navigation is interrupted by a fall of 85 feet over 15 miles of shoals, the Professor proceeds to speak of the two arms of the great rivers which flow from the mineral regions of North Alabama, through the cotton region of South Alabama, and at last to the Gulf:

"The rivers that form the Coosa rise in the basin between the southern extremities of the Blue Ridge and Alleghenies, in Georgia. The Blue Ridge, as if determined not to sink down at once into obscurity, has left a noble monument in that remarkable knob, the Stone Mountain. Coosa, from its rise to Greensport, in Cherokee county, flows along the strike of the rocks, and in a valley between the strata; it meets with scarcely any obstruction, and hence the remarkable phenomenon which it presents of a river navigable for steamboats at both extremities, with the intermediate part an impracticable rapid. It will be seen that between the places just named, the course of the river is northeast and southwest; at Greensport it turns directly south, and consequently crosses the edge of the strata, so that where these are hard and indestructible, rapids occur; but where limestone strata are crossed, a level reach is found. This state of things continues for a distance of 180 miles to Wetumpka, where the mica slates of the metamorphic rocks form the first obstruction and head of navigation.

"The navigation of a river 180 miles in length, passing through such a country as that through which the Coosa passes, appears to me so important a matter in connection with the prosperity of the State, that its improvement should enter into any scheme of internal improvement devised for its best interests. There are no formidable obstructions, but such as arise from sudden bends and accumulations of gravel, that a judicious expenditure of a few thousand dollars would not readily obviate.

"Between Wetumpka and the mouth of the Tallapoosa, the Coosa is a beautiful river, with high banks and deep water. At the junction, an accumulation of gravel takes place, which is the result of the lessening suddenly of the transporting force of the two rivers, by which the materials rolled onward by the streams are arrested in their progress, producing a bar and serious obstruction to navigation, which can only be remedied by the removal of the cause—that is, by making the streams to come together at a more favorable angle. The obstructions below this are such as are common to all our rivers below the falls, resulting from abrupt bends, sudden widening, submerged logs, over-hanging timber, etc.

"It will be seen at a glance on the map how completely the upper Warrior conforms to the Warrior coal field. Rising on the verge of the Tennessee, it runs rapidly over the coal measures of the basin, which it drains. The fall of the Warrior between its source and Tuscaloosa is nearly 1,000 feet, or 5 feet in a mile, and between the latter place and Mobile the rivers that unite with the Warrior have a fall of only 161 feet, or 5 inches a mile. It is for this reason that the Warrior rises, during floods, to the hight of 50 feet at Tuscaloosa; the water being suddenly checked and unable to escape with the rapidity of the rest of its course, it accumulates as it reaches Tuscaloosa.

"The obstructions in this river below the falls, and indeed in all the rivers that flow over the greatly inclined cretaceous and tertiary plane of the State, arise from deposits of gravel, sand, etc., that the river is no longer able to push forward. I am inclined to think that our rivers have become almost permanent, for certainly all the bars that I have observed between Tuscaloosa and Demopolis have not changed their form for years. From the yielding nature of the banks, such streams are subject to deflections, producing sudden bends that become serious obstructions.

"The great quantity of submerged timber is the result of the overflowing of the land by freshets, and the floating away of fallen trees; this, too, must have greatly diminished, and must still continue to diminish.

"The convergence of the Alabama toward the Tombigbee, is the result af that dynamical law, 'a body in motion will follow the line of least resistance.' The former stream flows along the loose sandy strata that underlie the rotten limestone, until it reaches a low point in that stratum, through which is passes to unite with the Tombigbee, and form the Mobile River.

"The rivers of Alabama, whether we consider them as one of the great physical features of the State, or in an economical point of view, are exceedingly interesting. There is scarcely any extensive and really valuable agricultural tract in the State that has not its navigable stream.

THE ALABAMA WATER LINES.

The Tennessee River and Muscle Shoals—The Tombigbee River and Bear Creek—The Coosa River—The Cahaba River—The Warrior River.

Mobile Bay presents the best harbor upon the Gulf of Mexico. It is completely land-locked, has secure holding-ground, and admits vessels drawing 22 feet. The ship George A. Holt arrived in Mobile Bay, December 16, 1869, drawing 22 feet; on the 25th of April, 1869, the steamship Golden Fleece left the Bay drawing 22 feet, 1 inch. That same year the steamship Mauritius, drawing 22 feet, 3 inches, left the Bay, It has been of frequent occurrence that ships drawing 21 feet, 6 inches, have passed out. The opinion is expressed by experienced pilots that, at a very small expense, 24 feet can be had on the outer bar.

Mobile River, flowing into this capacious harbor, penetrates with two arms, through the timber, agricultural and mineral regions of Alabama, within a few miles of the Tennessee river. One of those arms is the Coosa river, and the other is the Tombigbee. By uniting them to the Tennessee by means of short canals, the grain of the West could be transported, at a mininum cost, in barges directly from the great cities of the upper Mississippi to the fleets of Mobile Bay.

The Tennessee River.—By a glance at the map it will be seen that the Tennessee river passes from east to west through the entire breadth of North Alabama. The valley through which it passes is one of the most fertile and healthy in America. Unfortunately the navigation of this stream is interrupted by Muscle shoals. Should those shoals be surmounted, (and the prospect is promising for speedy action in the matter by the United States and by the States interested,) the valley of the Upper Tennessee, throughout the entire breadth of the cotton fields of Alabama, which lie upon its banks, and up into the valleys and hills of East Tennessee, would be thrown open to the commerce of the West.

From these shoals to Knoxville, a distance of 300 miles, there is water during nine months of the year for steamers drawing three feet.

Indeed, steamers of that draft can go for six months during the year as high up as Kingsport, or the boat-yard on the Holston, and this river is so gentle in its descent, so free of dangerous rapids, that the people of East Tennessee were formerly supplied with salt, brought down in flat-boats from the salt works of Abingdon, Virginia.

The removal of these shoals would also enable through boats of two feet draft, for six months of the year, to ascend above Knoxville 100 miles up the Little Tennessee, 153 up the Clinch, 75 up the Hiawassee, 125 miles up the French Broad, and 50 miles up Powell's River.

In short, there are 925 miles of natural navigation above the Muscle Shoals, with only three weeks precarious outlet at Muscle Shoals to the lower Tennessee and Mississippi valley, from a region whose drainage into the Tennessee embraces 15,000 square miles.

The navigation of these six tributaries can be easily improved still higher up from the above named points, viz: that of the Holston, to the Virginia Salt Works; that of the Clinch, 50 miles; that of the Hiawassee, 100 miles; that of the French Broad, 100 miles, or as far as Ashville, North Carolina, and that of Powell's River, 50 miles; making a total length of inland navigation above the Muscle Shoals of 1,300 miles.

The report from which these interesting facts are derived, was made by Col. W. B. Gaw, Civil Engineer, under the direction of Maj.-Gen. Weitzel, U. S. A. Gen. Weitzel, in transmitting the report to Washington, indorses the recommendation for the construction of a canal around Muscle Shoals, in the following language:

"In addition to the many good reasons given in the appended report for making the improvement at this time, and to those which have been given by the many able men who have reported on this subject in forty years, there occurs to me that not only would a work be done which should have been done years ago, but which would have repaid the Government a large interest.

"I am perfectly confident if the distinguished soldiers who commanded our armies operating along the line of this river during the late war, should be called upon to testify in this matter, that it would be found that enough money would have been saved to the quartermaster's department by an improved river, in one campaign, to have trebly paid the expense of doing the work."

Gen. Humphreys, in transmitting the report to Congress, urges the improvement strenuously, saying: "The Elk River Shoals, the two Muscle Shoals, and Gilbert's Shoals, all between Brown's Ferry, thirty-five miles above Florence, and Waterloo, thirty miles below it, constitute the only formidable obstructions on the river below Chattanooga, and, if overcome, would open a navigation for nine months in the year throughout the whole length of the Tennessee River, and upon its tributaries. All other impediments are not insurmountable at most stages of the water."

The Tombigbee River.—By a glance at the map it will be seen that

Cotton Gin Port, to which point this river is navigable, is but a few miles from Big Bear Creek, which flows into the Tennessee at Eastport far below Muscle Shoals. A branch of the Tombigbee approaches a branch of Big Bear Creek so closely that a canal of less than thirty miles length, fed by abundant waters, would unite the Lower Tennessee River with Mobile Bay. There has not yet been a survey of this route, and no calculation of the cost of the proposed communication, but it is certain that the cost will be small compared with any other suggested water line for conducting the barges of the Mississippi, Ohio and Tennessee Rivers to the shipping of the Gulf.

The Coosa River.—At Guntersville the distance between the Tennessee and the Coosa river at Gadsden, is only 45 miles. As the obstructions of the islands below Gadsden, on the Coosa, will be surmounted in time, it becomes an interesting question as to whether a water connection by canal can be made between the Tennessee and Coosa rivers at Guntersville and Gadsden, thus making a direct water communication from the Tennessee valley to the Gulf. (A Government survey, concluded in February, 1875, has shown the possibility of such a canal).

"The topography of this part of the country indicates the feasibility of this work," says Col. Gaw, the engineer quoted above, "and from the records of the Gadsden and Guntersville Railway survey (32 miles in length) sufficient data might be obtained to determine the magnitude of the undertaking, but the commercial advantages that would attend the construction of this work are so great as to demand an examination of the country with this special view."

The late Commodore Matthew F. Maury, in his review of the resources of Virginia, speaks of the relation of the Coosa River to the Tennessee, as follows:

"There is at present natural navigability from Mobile up the Alabama River to Wetumpka, on the Coosa; here the ledge, which crops out to form the Muscle Shoals of the Tennessee, interrupts navigation, and forms a portage of 180 miles; after which the river again becomes navigable, and steamers ply on it regularly thence to Rome, Georgia. A canal over from the Coosa to the Tennessee would open an inland communication between the Chesapeake Bay and the Gulf of Mexico, that would be of the utmost importance in war."

"As a great national work, both commercial, political and defensive in is aspects, this fact seems not to have made a lodgment in the public mind—viz: that if this great Southwestern route were completed on the scale and in the manner now suggested, there would meet at Gunter's Landing two inland and national water lines, as useful in peace as in war—one from the Gulf of Mexico, *via* the Alabama and Coosa rivers, through a steamboat canal of not over 30 miles long, to the Tennessee. The other, through all the western tributaries of the Mississippi, above and below the mouth of the Ohio, thence up the Tennessee to the junction of the Coosa Canal, and so up the Tennessee to the Holston at Saltville, and thence by rail and water through Virginia to Hampton Roads."

There are two practicable routes for a canal to connect these two rivers. The one known as the Sand Mountain route, begins at Guntersville, on the Tennessee River, and extends by canal and slack-water to Gadsden, on the Coosa River. This route was surveyed by James C. Long, Civil Engineer, in 1872, by direction of Major Walter McFarland, Corps of Engineers, United States Army, and his report shows the estimated cost to be

	$10,970,607 00
To this Major McFarland adds, for increasing the capacity of storage, reservoirs and extra cutting in shortening the line, &c.	1,500,000 00
	$12,470,607 00

Which is the total estimated cost, as shown in Major McFarland's report, published in the annual report of the Chief of Engineers to the Secretary of War, for the year 1872.

The other, known as the Chicamauga Route, would probably begin at the mouth of Chicamauga Creek, on the Tennessee River, five miles above Chattanooga, passing up the Chicamauga twelve miles by means of slack-water navigation, thence by canal thirteen miles further, along the banks of the same stream, to a point above and near Ringgold, Georgia; thence by canal seven miles across to Cooyehulla, thence by canal along the banks of the creek ten miles to the Conasauga River, thence down the Conasauga and Oostanaula rivers sixty miles by slack-water to the Coosa River, at Rome, Georgia.

From the above we see that the distances by the Chicamauga Route, from Guntersville, Alabama, to Rome, Ga., are as follows: 135 miles of river navigation *via* the Tennessee to the mouth of Chicamauga Creek; 72 miles of slack-water navigation, and 30 miles of canal navigation, from the mouth of the Chicamauga, to Rome. Total, from Guntersvllle, Alabama, to Rome, Georgia, *via* the Chicamauga Route, 237 miles.

By the Sand Mountain Route the distances are as ofllows: Canal navigation and slack-water navigation from Guntersville, *via* the Tennessee to Gadsden, on the Coosa River, 50½ miles; river navigation *via* Coosa River, from Gadsden to Rome, 135 miles. Total from Guntersville to Rome, *via* Sand Mountain Route, 186½ miles.

The cost of the Sand Mountain Canal would be $11,570,000; that of the Chicamauga Canal $4,786,000. The cost of opening the Coosa River from Wetumpka to Rome is estimated at $2,500,000.

The Cahaba River.—This stream rises above and flows through the heart of the mineral region, joining the Alabama at Cahaba, below Selma. It is not navigable, but by slackwater improvement can easily be made so at little cost compared to the benefits which would accrue to Mobile from the facility it would afford to procure coal directly from the mines. The improvement of the Cahaba can be effected at a cost of $185,000, to clear a channel of one hundred feet width and three feet depth. To secure the best attainable results would involve an additional expenditure of $500,000 for locks and dams.

The Warrior River.—It is entirely practicable to remove all obstructions to the navigation of the upper Warrior to an extent that will, at extreme low water, give a minimum channel eighty feet wide and four feet deep—making the river navigable all the year. This improvement may be made at a cost of $150,000, and for this the Tuscaloosa Board of Industries are now memorializing Congress. It is believed that with this cleaning out of the Warrior, cotton could be brought to Mobile from Tuscaloosa for 50c. per bale, and the cost of other freight so much reduced as to result in a saving of $63,000 annually.

Above Tuscaloosa, as high up as Locust or Mulberry Fork, more work is needed. When the Forks are reached, navigation will have entered the richest section of the Warrior coal fields. The cost of transportation by barges to Mobile is estimated by Ohio river experts at 75 cents per ton; making the total cost of coal at Mobile $2.25—or, with a safe margin for contingencies, say $3.00—per ton. Now the current quotations for coal on the principal Atlantic and Gulf ports are as follows: New York, $6.50 to $7.50; Baltimore, $4.50 to $5.50; Havana (in gold), $9.00 to $10.00; Mobile, $10.00 to $12.00; New Orleans, $7.00; Galveston, $15.00. An inspection of these rates shows *that the Warrior coal can be delivered on the Gulf at prices that defy competition from any quarter.* Hence it is destined to supply the entire demand of the Gulf ports and of the steam marine trading between them.

The peculiar value of this water communication with the Warrior coal beds is due to the fact that the coal measures of the Warrior basin embrace an area of more than 3,260 square miles. The basin is traversed almost centrally from the northeast toward the southwest, through the most productive part, in coal, by the Warrior river. The width of this basin exceeds sixty-five (65) miles; and the strata composing it, are synclinal, from the northwest and southeast, toward the Warrior River. As these strata approach this synclinal axis, they become quite horizontal, affording exposures of bituminous coals, frequently from ten to twenty feet wide, in the beds of the creeks tributary to the Warrior, and often in the bed of the river itself, extending entirely across them; so that, at low stages of their waters, large quantities of coal have been broken out and sent to market.

VALUE OF THE ALABAMA WATER LINES.

Centres of grain production—Eastward outlets by Rail and Lake—Difficulties of the Mississippi River outlet—Cheapness and value of the Alabama routes—The local water lines—Their relation to the mineral region—Mobile Bay as a coaling station.

The Alabama water line which must at an early day connect the harbor of Mobile with the Tennessee River, and thus link it to the vast water system of the West, presents the cheapest mode of exit for the accumulating products of an imperial domain. *The grain producers of the Western States are quite unable to find sufficient means of conveyance for their products*, because the railroads from west to east are choked with traffic. The existing railroad requirements of the West are, in fact, insufficient. At present, because they cannot carry the produce, the whole traffic of the country is subject to two gigantic evils, arising, first, from uncertainty of conveyance; and, second, from uncertainty of charge. The present railways are quite insufficient for the growing traffic. The lines of communication from the West, by canal, etc., which existed previously to railways, *have not been affected by their construction. The produce of the Western States has, in fact, increased faster than the means of transport, and additional facilities for the conveyance of goods are urgently required.*

Centres of Production.—The centres of production have moved so far westward that the cost of transportation over eastward lines of railway is becoming prohibitory. In 1850, Ohio, Michigan and Indiana produced over 12,000,000 bushels of the surplus wheat, and all the other States produced only 10,000,000. The line of equal division was near the middle of Indiana.

In 1860, these States produced 17,000,000 bushels, while States west of the Mississippi produced 6,500,000, and Illinois and Wisconsin, 27,000,000. The line of equal division was near the middle of Illinois. In ten years it had receded across one State.

In 1870, States east of Illinois and Wisconsin produced 44,000,000, and States west of the Mississippi, 67,000,000. Of the surplus of 1872, it was found that the dividing line cuts the Mississippi River at the bend near Fulton.

Fifty million bushels of wheat, or 1,500,000 tons, now cross the Mississippi River to seek an outlet. Every year the centre of production is receding further to the West, and passing further and further beyond the transporting power of the Eastern roads.

It is more difficult to ascertain the exact surplus of corn, but we know that from the large crop of 1871, out of a surplus of 194,000,000 bushels, nearly 107,000,000 came from Illinois, and 44,000,000 from west of the Mississippi. The centre of production may be said to be at St. Louis, since but 7,000,000 bushels are produced in counties of Illinois nearer the lakes than the river.

Eastward Route by Lake and Canal.—The trans-continental water lines are locked by ice and idle for five months of the year, from December to May. Although the Erie Canal has been vastly improved and enlarged, we find that while the surplus of grain to be moved has increased fourfold, the quantity moved by lake and canal has not even doubled in twenty-two years, and within ten years has actually decreased. The time lost by the slow water lines, the freezing of the canals, and the cost of trans-shipping at Chicago and Buffalo, have enabled the railroads to compete successfully with their water rivals. The New York and Welland canals, in 1861, moved 2,330,000 tons of grain, and the three railroads only 905,000 tons. In 1872 the New York and Welland canals moved 2,309,000 tons, and the competing railroads moved 2,770,000. The canals had fallen off, and the railroads had increased threefold.

Eastward Routes by Railroad.—The competition between the lake and canal routes, and the railroads, puts down freights to the lowest paying point from Chicago eastward. But when the roads have passed to the west and south of Chicago, and have escaped the water competition, the rates are rapidly increased. Even if St. Louis could ship the entire surplus crop of the trans-Mississippi over the eastward roads, she would be compelled to make good the losses incurred by the roads in their sharp competition with the canals and lakes.

All of the existing railroads and canals to the east were able to move, in 1872, only 5,860,000 tons of grain, leaving over 3,000,000 tons to be transported in some other way. At the rate of grain production west of the Mississippi, but a few years will elapse before twice as many railroads, as now exist, will be required to meet the demands of commerce.

The Mississippi River Route.—Although the Mississippi River would appear the natural conduit for the productions of the States which lie upon her waters, there are serious difficulties in the way of its becoming an easy outlet for commerce.

The memorial of the St. Louis Exchange reports that—" a depth of 8 feet at low water is the least that will serve the absolute needs of this commerce; but upon some bars between St. Louis and Cairo the river shoals nearly every year to about 5 feet, or even less, at times practically stopping navigation altogether." In 1870 there were two hundred and twenty-eight days of the year when the depth of water in the channel between St. Louis and Cairo was under 8 feet, and eighty-one days when it was under 6 feet. In 1871 there were one hundred and twenty-two days when it was under 6 feet, and two hundred and twelve when it was under eight feet. In 1872 there were two hundred and thirteen when it was under 8 feet, and sixty-seven days under 6 feet. For seven months of the year, therefore, there is not enough water on the shoals between St. Louis and Cairo to " serve the absolute needs of this commerce."

But when the barges have reached New Orleans, they are still a hundred miles from the sea, and must meet the difficulties which beset the river navigation from New Orleans to the Passes.

There are thirty steamers engaged in the foreign trade from New Orleans. During the year 1874 one of these steamers, drawing 18 feet 3 inches, undertook to move the small quantity of 50,000 bushels at once; she ran aground and was detained fifty days. The average cargo from New Orleans does not exceed 23,000 bushels, but the thirty steamers, if each took 25,000 bushels of corn at every trip, would move just about the surplus corn of one county of Illinois in eighty days, if they all ran to New York, or in about five months if they all ran to Liverpool. Grain-carrying is not a profitable business for light draft vessels, and the large class of vessels which are able to carry at paying rates, are practically excluded from New Orleans.

The report of the New Orleans Chamber of Commerce says that "fully two-thirds of this tonnage, if loaded with heavy cargoes to their full draft capacity, would be unable to cross the bar at our river mouth, owing to the shoal-in water during a great portion of the year.". The ships are obliged to confine themselves to a draft of water in loading of 18 feet in winter months and 16 feet in summer months. The commerce of the Mississippi Valley demands the lowest rates of ocean freight, and consequently the use of vessels carrying 3,000 tons and drawing at least 20 feet.

There was a blockade of ships at Southwest Pass, in May, 1874, caused by a ship getting across the channel, which detained the steamer Memphis on the bar twenty-seven days. This blockade caused seven million dollars in produce and cotton to be locked up, which, with the detention of seventy-five ships, occasioned a loss of not less than $700,000.

During the low stage of water at the bar-mouth ot the Mississippi, a complete blockade is at times formed by the sticking on the bar of five or six ships, these often remaining there for weeks, during which time ships arrive outside, inward bound, also from the city, outward bound, unable to pass either way, thus causing incalculable loss to both ship owner and shipper, to say nothing of heavy bills for towage arising from these causes. (See Windom Report, vol. 2, p. 849).

The grain traffic, which needs heavily laden vessels for every day of the year, cannot risk the delays and dangers of the mouth of the Mississippi, nor will vessels be built especially for so precarious a route.

Another difficulty which besets the steam shipping at New Orleans is want of coal. The lack of water on the bar prevents steamers from taking on coal at New Orleans. Last year they went to Norfolk for coal. They go to Port Royal and Havana. Outside of the bar it is often very rough, and it is impossible for two or three days at a time for a steamer to receive coal from barges.

The charge for towage is $1.40 to $1.50 up and down, per ton. The Memphis paid the Tow Boat Association, for hauling her off the bar and back to the city, $8,400. The charges of the elevator, and for storing and handling the cargo, were $2,884.

The ship Regent, a 1200 ton ship, went to New Orleans for a cargo. She did not get it, and came to Mobile. A Mobile lawyer, George N. Stewart, Esq., had the account to collect; it was $2,990 towage up and down the river.

Mobile Bay presents a nearer shipping port for the West, and a cheaper one than New Orleans. Here we have ample water for the largest grain-carrying vessels, a vast and strong anchorage, no towage, and no delay at any season of the year. Here also may be made the cheapest and best coaling station upon the continent.

Cheapness of the Alabama Routes.—The river and canal lines from the mouth of the Tennessee to Mobile Bay, by either of the projected routes would carry grain to the Gulf and thence to New York, at lower rates than by way of New Orleans.

In the year 1868, large quantities of grain were shipped from Chicago to New York by way of New Orleans, and, notwithstanding a portion of the route was by railway, a large saving was made in the cost of freights. In an able paper on the duty of the Federal Government, in connection with the navigation of the Mississippi River and its tributaries, Professor Sylvester Waterhouse, of St. Louis, remarks: "Under all the existing difficulties (of this navigation) the freight of cereals from the Upper Mississippi to New York, is far cheaper by way of New Orleans than it is by the lakes and the New York Canal. The comparative rates of transportation from Dubuque, Iowa, to New York, are:

Via the Lakes	68 cents per bushel.
Via New Orleans	38 cents per bushel.
Difference in favor of the Southern Route	30 cents.

"The present cost of shipping grain from Chicago to Cairo *by rail*, and thence *via* New Orleans to New York by water, is no greater than the freight to the same point by way of the lakes. The existing water tariff on wheat in bulk, from Chicago to New York, is:

By the Lakes	44 cents.
From Chicago to Cairo, by Rail	20 cents.
From Cairo to New Orleans, by Water	12 cents.
From New Orleans to New York, by Water	12 cents.

"So extreme is the cheapness of river carriage, that the rates of the Southern Route, increased by 300 miles of costly railroad transit, do not exceed those of the Northern line. If we take a point on the Mississippi south of the latitude of Chicago, such as Dubuque, the saving is 30 cents a bushel by the New Orleans route. This gives 38 cents as the cost; and it is believed that after the improvement of the rapids of the Mississippi, and the erection of elevators for the transfer of grain in bulk, the freight of cereals from the Upper Mississippi to New York, by way of New Orleans, will be reduced to 25 cents per bushel."

Remarking upon the subject of transportation for Western trade, the Superintendent of the census says:

"When it is considered that the production of grain in the

Northwestern States increased from 218,463,583 bushels in 1840, to 642,120,366 bushels in 1860; and that of the eight food-producing States west of the lakes, embracing an area of 262,549,000 acres, only about 52,000,000 acres were under cultivation in 1860, and that 26,000,000 acres of that have been broken since 1850, no fears need be entertained that any of the outlets to the ocean will be unoccupied to the extent of their capacity. *The only fear is, that we will not keep pace with the increased production by the provision of increased facilities of transportation.*"

The Local Water Lines.—The national importance of her projected through water lines renders Alabama the most interesting of all the Southwestern States, and gives promise that she will become at no distant day the seat of vast wealth, enterprise and population. The local water lines also offer her great facilities for commerce. The iron and coal of Alabama, by reason of their location and attending circumstances, can be developed and made available to general commerce with probably less cost and exposure, and disposed of on the seaboard at Mobile eventually at a less price than at any other port of the United States.

The mineral region is near the sea, in a country not rough or mountainous, but comparatively level, with a gentle slope to tide water and the sea, such as is rarely found, no ridges intervening. The coal and iron are found near the surface, in the greatest abundance, and of the best qualities. No ice nor snow interferes with the transportation, and the extent of mineral lands is so vast that the material cannot be monopolized by few owners, so as to raise the price.

This mineral region commences at the line where occur the first or lower falls of the several rivers flowing to the Gulf, about two hundred miles from the sea coast, extending thence northwardly. The valleys of the Tombigbee, Warrior, Cahaba and Coosa rivers extend up into these mineral lands, the rivers and valleys all tending like a funnel into Mobile Bay.

The opening up of these rivers into the heart of the coal and iron region would make Mobile one of the greatest manufacturing cities of the continent, and would make Mobile Bay the shipping port of the immense quantities of coal needed for the commerce of this part of the world.

Mobile Bay as a Coaling Station.—The coal and iron of Alabama are nearest to the ports of Mobile and Pensacola, and must, from the necessity of the case enter largely into the grand commerce which engages the steam navigation of this interior sea, which has become one of the most important highways of nations. Commo dore Matthew F. Maury has thus predicted the future importance of the Gulf of Mexico:

"The river basins drained into the Gulf and Caribbean Sea, greatly exceed in extent of area and capacity of production the river basins of the Mediterranean. The countries in Africa, Asia and Europe, which comprise the river basins of the Mediterranean are, in superficial extent, but little more than one-fourth the size of those which are drained by this sea in our midst. It is the Mediterranean of the new world; and nature has laid it out on a scale for commerce far more grand than its type in the old; that is, about forty-five degrees of longitude in length, by an average of seven degrees of latitude in breadth. Ours is broader but not so long; it is, therefore, more compact. Ships can sail to and fro across it in much less time, and gather its articles of commerce at much less cost.

"Had it been left to man to plan the form of a basin for commerce on a large scale—a basin for the waters of our rivers and the products of our lands—he could not have drawn the figure of one better adapted for it than that of the Gulf, nor placed it in a position half so admirable. The Mississippi and the Amazon are the two great commercial arteries of the continent. They are fed by tributaries with navigable length of channel, more than enough to encircle the globe.

"The products of the basin of the Mississippi, when they arrive at the Balize, may, in twenty or thirty days, be landed on the banks of the Orinoco and Amazon. Thus, in our favored position here in the New World, we have, at a distance of only a few day's sail, an extent of fruitful basins for commercial intercourse which they of the Old World have to compass sea and land, and to sail the world around to reach.

The following report of Major Chase, late of the United States army, will show the importance, in a military point of view, of coal in the Gulf:

"Considering that war steamers would enter largely, if not exclusively, into our naval forces in the Gulf of Mexico, it is important that convenient depots for coal should be established. Deposits of coal could be made at Bahia Honda, and at Key West. At Tortugas, a three years supply for *thirty steamers* could be constantly maintained. A position for a coal depot on some point on the western coast of Florida is certainly necessary. Tampa Bay would probably afford the requisite depth of water for heavy steamers, and convenient sites for the depot and its defense Thus held, it would also give protection to vessels seeking refuge from an enemy. A coal depot would be established at Pensacola and at Mobile Point, under the protection of Fort Morgan. Another depot for coal would afford great facilities to steam operations, if established at Ship Island. A strong battery, but not costly, would protect the harbor. This depot would be easier of access than the one at Fort Jackson, on the Mississippi, and would afford supplies, not only to the light steamers cruising along the coast, but to those of the heaviest class. A depot at Fort Jackson would be necessary to enable the steamers descending from Memphis to take in a full supply of coal before proceeding to sea."

The commerce of the Gulf must be supplied with coal. John T. Milner, Esq., a distinguished engineer of Alabama, says that "Alabama must be to the countries around this central basin, what Pennsylvania is to the Atlantic States. Her coal must drive their ships, their mills, and their machines. As yet, but little coal of any worth has been found upon the Pacific coast. An inferior shaly stuff has been found in Chili, Australia and California; but it will never do to carry ships across the ocean.

THE MOBILE AND ALABAMA GRAND TRUNK RAILROAD.

Extent and Value of the Mineral Regions—Analysis of the Iron, Coal and Limestone—Transportation to the Sea—Comparison of Routes—Cost of Manufacturing—Cheapness over Pennsylvania—Mobile the natural outlet.

The Mobile and Alabama Grand Trunk Railroad, already built 60 miles (Feb. 1875), and with every prospect of early completion, will connect the city and harbor of Mobile by an air line with Birmingham, the centre of the mineral region.

Extent and Value of the Mineral Lands.—The following extracts are from the report of a distinguished English civil engineer, Mr. B. P. Stockman, of 3, Poet's Corner, Westminster, who visited Alabama in 1874, in the interest of English capitalists in the Mobile and Alabama Grand Trunk Railway.

"Near —— the coal crops out and the iron ore literally strews the ground; at —— the line crosses the Red Moutain through a gap, and here is the great depository of the famous red hematite or fossiliferous iron ore. Much has been said about this wondrous upheaval, but I think too much cannot be said of the store of wealth it contains. The Red Mountain is about 100 miles in length, its highest ridge is about 700 feet above tide level, and its width at the base is about one mile, and the whole of this mountain and its spurs are full of solid ores. On the west side of the mountain brown hematite abounds; the whole region, in fact, is solid with iron ore, coal, and mountain limestones.

"The red and fossiliferous ore requires no roasting, and cost so little quarrying or smelting, that they can be converted into pig iron and sold at the works at $8.00 (1*l.* 12*s.*) per ton, and could be taken to the Gulf and put free on board for $2.50 (10*s.*), making the total price of the pig iron $10.50 (2*l.* 2*s.*) per ton free on board, and would warrant the exportation of the iron to England."

The late State Commissioner of Industrial Resources, James L. Tait, says that no language that he could employ could possibly do justice to the immense value of the great coal deposits of the Warrior, Cahaba and Coosa coal fields. They cover 5,500 square miles. Five or six seams of coal, measured by him in person, lying near the leading railroad lines, showed an aggregate thickness of 19 feet 4 inches. Assuming this to be limit of the strata, it shows an aggregate of nineteen millions of tons for every square mile; and estimating only one half the area to be productive, it would amount to fifty billions of tons for the entire fields. He says further that if we were to attain to a mining capacity equal to that of the State of Pennsylvania at the present time, it would take 2000 years to exhaust the supply. The character of Alabama coal is similar to that of Pittsburg. It is remarkably free from sulphur and also from iron pyrites, two qualities essential for steam navigation. The analysis of a specimen from the Cahaba Valley is:

Valuable Combustible Matter		36.68
Fixed Carbon		57.23
Ashes		5.30
Moisture		.79
Sulphur	a trace.	
		100.00
Specific Gravity	1.304.	

As to the river deposits it has been already noticed that the ore is of the richest quality, easily worked, and covering an immense tract of territory. An analysis of ores, taken from various strata of Red Mountain, by Dr. Otto Werth, of Pittsburg, resulted as follows:

IRON ORE.

Nos.	1.	2.	3.	4.	5.	6.	7.
Silicic Acid	16.31	31.62	32.04	31.83	31.16	31.91	16.73
Alumina	3.76	4.414	5.13	4.46	4.64	4.05	2.01
Per Oxide Iron	78.55	62.45	59.97	60.51	59.87	60.32	66.84
Lime	0.68	1.03	......	......	......	......	......
Magnesia	0.21	0.34	......	......	......	......	.....
Phosphoric Acid	0.49	0.42	......	......	......	......	......
Sulphur	trace	......	......	......	......	......	......
Metallic Irons	54.98	43.71	41.98	42.36	41.91	42.22	46.79

COAL.

Nos.	1.	2.	3.	4.	5.	6.
Water	0.23	0.30	0.13	0.17	0.21	0.17
Bitumen	32.53	31.36	32.69	31.49	33.28	25.97
Fixed Carbon	61.26	65.45	63.40	60.60	64.10	70.10
Ash	5.85	2.81	3.52	7.56	2.34	3.68
Sulphur	0.13	0.08	0.21	0.18	0.07	0.08

LIMESTONE.

Nos.	1.	2.
Water	0.11	0.10
Organic Matter	0.07	0.06
Silicic Acid	2.13	5.32
Alumina	0.21	0.71
Per Oxide Iron	0.12	0.08
Carbonate of Lime	90.60	93.40
Carbonate of Magnesia	6.74	0.32
Phosphoric Acid	0.016	0.011

The conclusions reached by Dr. Werth, from his analysis, are clear and positive. He says: "Better limestones you cannot get anywhere. All the coals must be considered first-class coals for all practical purposes. They coke very well, provided they are coked quickly, and will produce a strong coke, remarkably free from both sulphur and ash. The ores, particularly No. 1, are not very retractory, and the iron produced will be good neutral pig—perhaps slightly cold short."

The seven strata of ore aggregate twenty-two feet six inches, dip twenty-four degrees southeast, and give an average of 44.87 per cent. metallic iron.

It is not so much the enormous quantity of ore which constitutes the supremacy of Alabama. It is the quantity combined at the same time with the quality, the easy access, the immediate proximity of the coal and iron; the proximity of limestone used in reducing some descriptions of ores; the abundance of water power; the healthfulness of the country; the freedom from snow and ice; the abundance of provisions, and of timber; the proximity to the sea; and the fact that the valleys extend with the flow of the streams; without heavy grades; by national and easy routes; and by railroad and water flow to the sea. All these advantages are found combined in a higher degree in this mineral region of Alabama, than elsewhere in the world.

The transportation to the sea at Mobile is made easy by railroad, because of the favorable nature of the country. The valleys of the mineral region all point towards Mobile, and the waters all flow into Mobile Bay. There are no mountain ridges to cross, and no high hills intervening. The route of the Mobile and Alabama Grand Trunk Railroad is the one designed by nature for transportation of Alabama's mineral wealth to the sea. The distance from Birmingham to Mobile is 231 miles. The depot at Birmingham will be 576 feet above low tide water. The highest point of elevation anywhere upon the line is at Grace's Gap, 3½ miles south of Birmingham. From Mobile to that point the grade of the road does not exceed 39 6-10 feet to the mile, and there is no grade of any considerable length of over 35 feet to the mile. From Marion to Mobile there is no grade over 29 feet to the mile. With such a grade no railroad route leading from a mineral country to the sea could compete with this.

No route could compete with this for the transportation of coal. A comparison of distances and grades between the roads which connect the mines with the seaboard, exhibit at a glance the superiority of the Grand Trunk. The coal measures will be accessible—

1st. By the Mobile and Montgomery, and South and North Railroads, from the Cahaba coal fields, a distance of—

To Mobile	265 miles
To Pensacola	245 miles

Over a grade of 65 feet to the mile. On this grade the capacity of a 27 ton engine would reach a load of 147 tons, equal to 15 cars.

2nd. By the Alabama and Chattanoóga Railroad, and the Mobile and Ohio Railroad, from the Warrior coal fields, a distance of—

To Mobile	235 miles

Encountering a grade of 66 feet per mile, equal to 14 car loads of coal with an engine of 27 tons.

3rd. By the Mobile and Alabama Grand Trunk Railroad, now completed 59 miles in the direction of the Cahaba coal fields. By this road these fields will be reached at a distance of—

From Mobile	190 miles

And encountering a grade of 29 feet per mile. The capacity of a 27 ton engine on this grade is equal to a load of 268 tons of coal, 27 car loads, being an advantage over the lines to Pensacola of 55 miles in distance, and with a capacity for business of 27 car loads, against 15 per train with same motive power.

Cost of Manufacturing.—The cost of making iron in this mineral region is thus estimated by L. S. Goodrich, Superintendent of the Eureka Iron Company:

Estimating two tons of ore to make one ton of iron at seventy-five cents per ton	$1 50
Seventy-five bushels coke, at 9 cents	6 75
Limestone flux	75
Labor per ton	2 50
Interest on investment	1 00
Wear and tear	50
Incidentals and salaries	1 50
Total cost to produce one ton iron	$14 50

It is estimated that one ton of pig iron costs the producers on an average, in the manufacturing centres, not less than $28, on the 31st March, 1874.

The average cost of ores to the ton of pig iron in the anthracite regions, as given by W. E. S. Baker, of the Duncannon Iron Company, Secretary of the Eastern Iron Masters' Association, on 31st of March, was $14 75 per ton; total cost to produce one ton pig, $33 47.

The ores of Iron Mountain, Missouri, which sold at $8 per ton, delivered at Carondelet and St. Louis, and the Lake Superior ores, at $9 per ton at Cleveland, Ohio, cost to transport them to the works not less than $3 to $7 per ton, and it required from one and five-eighths to one and three-fourths tons to produce one ton pig iron.

In Great Britain and Belgium, where labor is cheap, the average cost of manufacturing pig iron from the ore is $12 per ton, and for wrought iron $36 to $40 per ton, according to quality. In Pennsylvania the expense of making pig iron with anthracite coal is $25 per ton, and of making railroad iron $65 to $70 per ton (1872). At the Shelby Iron Works of Alabama, where the manufacture of charcoal iron is carried on, the ore being brown hematite, dug from a rising ground near the furnace, the items of expense are as follows:

Mining ore for one ton of cast iron	$ 2 50
106¾ bushels charcoal, 8c	8 56
Preliminary roasting	50
Limestone for fluxing	25
Smelting and attendant expenses	5 20
General expense of work	3 00
	$20 01

If this statement of expense is compared with an estimate for the smelting of the red hematite by the semi-bituminous coal of the Warrior field, which is singularly free from sulphur, and as well suited for the smelting of iron as the anthracite of Pennsylvania or the bituminous coal of England and Scotland, the estimate would be as follows:

Cost of ore for one ton of iron	$ 2 00
Cost of two tons of coal for smelting	2 00
Cost of smelting	5 00
General expense of works	3 00
Total	$12 00

This ore requires no roasting nor flux, and the coal does not need to be converted into coke.

The cost of making railroad iron in this region is as follows:

Cost per ton of cast iron and old rail iron	$22 00
Puddling in reverbatory furnace	5 00
Reheating	4 00
Rolling	6 00
General expense of work	3 00
Total	$40 00

The average cost of making railroad iron Pennsylvania is $68 per ton, in Europe $38.

Such being the attractions of the mining region of Alabama, and Mobile being the nearest seaport to that region, the Mobile and Grand Trunk Road must become the main avenue for transportation to market of ores and manufactured iron. This road is the direct valley route from the mines.

PROGRESS OF ALABAMA SINCE THE WAR.

Growth of the State since 1868—Erection of Furnaces and opening of Mines—The Colony of Cullman—The settlement of Strasburg—The City of Birmingham—Its growth and surroundings—Improvement of different regions, &c., &c.

When the first edition of the Alabama MANUAL was published, in 1868, the State had not recovered from the immediate effects of the war. The railroads had not penetrated the mineral regions. But few furnaces had been erected. There was an apathy and uncertainty in all branches of business, and, worse than all, the Constitution of the State had been so changed by Congress, as to throw the Government under the control of the negro population. In spite of this untoward condition of affairs, the natural advantages of Alabama asserted their rights, and attracted population and capital.

Since 1868, the two great lines of railway which cut the State diagonally have been built, the Alabama and Chattanooga Railroad, and the South and North Alabama Road, bisecting the mineral region, and crossing each other at the new city of Birmingham. A large number of furnaces have been built. Many coal shafts have been sunk, and large quantities of coal have found their way to market at Pensacola and Mobile.

The coal of Alabama has already become recognized as a commercial power. The following letters, addressed to C. L. LeBaron, of Pensacola, established the fact that the statements and calculations, contained in the MANUAL of 1868, have been confirmed by time:

U. S. S. POWHATTAN, (2 RATE,)
KEY WEST, Fla., April 16, 1874.

Sir:—The following is the result of two days trial in the Steam Launch, of the bituminous coal, received at Pensacola from mines of Alabama:

Coal used in pounds	862.
Water used in pounds	1996.8
Water evaporated per pounds of coal	962.

The coal burns freely, caking slightly and making no clinker, and apparently but small per centage of ashes.

It was impossible to ascertain the amount of ashes, as the greater portion was discharged through the smoke pipe by the exhaust of the engine.

With a boiler suited for burning bituminous coal, and natural draught, the result would be more favorable.

The experiment has been made in smith's forge of this ship, and the coal found unfit for blacksmiths purposes.

Respectfully, &c.,
W. W. DUNGAN,
Chief Engineer, U. S. N.

To Captain J. C. Baumount, Com.

U. S. S. POWHATTAN,
NORFOLK, Va., May 13th, 1874.

My Dear Sir:—I endorse herewith a report of Chief Engineer Dungan to me regarding the coal you placed on board this vessel at Pensacola, Florida.

A further trial has been made with it, and the coal found excellent for steaming purposes. Its evaporative power is, in my opinion, superior to that of the coal in ordinary use for steaming, and only inferior to the Cumberland.

I am sir, very truly yours,
J. C. BEAUMONT,
Captain Commanding U. S. S. Powhattan.

C. L. LeBaron, Pensacola, Florida.

Along the line of the Selma, Rome and Dalton Railroad (the line known to travelers as the Blue Mountain Route), there has been a rapid and wonderful development of both mineral and agricultural wealth. This road extends from Dalton, in Georgia, to Selma, in Alabama, a distance of 236 miles, passing through one of the best, if not the very best, mineral regions of the South. The ores found along the line of this road may be classed in three groups, the brown hematite, specular and magnetic. Practically the brown hematite is the only ore in use. In 1871, there was but one furnace upon the line of this road. From Dalton to Rome may be found almost a continuous bed of ore. The first ore that attracts attention is found fourteen miles below Dalton; by means of a tramway, ore is brought from the hills, some two and a half miles from the main line, and is now being shipped in large quantities to Chattanooga, to be mixed and used in connection with the "red ores" of that vicinity. A few miles above Rome is the Ridge Valley furnace in course of construction, and destined soon to become a source of revenue to its owners. From Rome to Prior's Station, about twenty miles, there are no ores on the immediate line of the road, but at Prior's, and near the Alabama State line, we again find the brown hematite, and in large quantities. At this point a furnace is contemplated by Mr. Vandevender, and at Cedartown, some six miles from the road, a furnace is now being built by Mr. West, formerly connected with the Shelby

Iron Co. At or near the State line is the Ætna furnace, in charge of Colonel Harris. This furnace has lately been entirely refitted, and is now in successful operation, and yields about ten tons per day. It is one of the two cold blast furnaces on the road, all the rest being hot blast. All the furnaces on this line are charcoal furnaces. One and one-half miles below is the Yankee or Tecumseh furnace. The stockholders in this company are all Northern men, and the furnace was built by, and is now in charge of General Willard Warner, formerly United States Senator from Alabama. It is considered one of the best furnaces in the South. It is capable of turning out twenty-five tons per day, although the furnace is not worked up to its full capacity; it is thought that this furnace will eventually yield a handsome profit to its owners. Three miles below we come to Stonewall furnace, which has a capacity of about eighteen tons per day, and is in charge of Col. Wurtz. This furnace is owned entirely by Southern men, and its iron stands high in the market. Four miles below, at Cooper's, and three miles from the road, we find the Royer furnace, built and owned by Cincinnati capitalists. It has lately gone into operation and turns out about ten tons per day. From this point we pass on to Woodstock furnace, built by Messrs. Tyler, Noble & Co., and in charge of Mr. Noble, formerly of Rome. This company has expended a large amount of money in permanent improvements, and their furnace may be considered among the best on the road, and turns out about eighteen tons per day. The next is the Alabama furnace, just above Talladega. This furnace is in charge of S. S. Glidden, Esq., who has had large experience in Ohio and Kentucky in the manufacture of iron. This is really one of the smallest furnaces on the road, but by judicious and careful management it now turns out more iron than any of the rest. Passing along to Columbiana and going out six miles by rail, we come to the extensive works of the Shelby Iron Co., who have two furnaces, very extensive stores, mills, machine shops, &c., &c., and who own large tracts of mineral land. This company is in a prosperous condition, and has expended over half million dollars well and judiciously. These works are in charge of Walter Crafts, Esq., an accomplished gentlemen and a man of great experience in the business. Passing on below Calera, the crossing of the South and North Road to Brierfield, we come to Brierfield furnace, in charge of Captain T. S. Alvois. This furnace is a cold blast, and the iron made here is used exclusively for car wheels. The iron is of a very superior quality. During the late war the Confederate Government used this iron exclusively in the manufacture of their ordinance; in fact they first built the furnace. This furnace turns out about ten tons per day.

Here then are eleven furnaces, eight in full operation, making not less than 125 tons of pig iron per day, with a capacity of over 150 tons. The furnaces tell their own story, and the fact of their existence is the best "advertising medium" that could be asked for. All this has been brought about in less than three years.

The market for this iron is found in Cincinnati, Louisville, St. Louis, and other Northern cities. Special rates of freight are generally given to furnace companies, and are, as a general rule, satisfactory.

For nearly 200 miles along this road the ore is inexhaustible. Large tracts of land are in the hands of individuals, and the railroad company also owns large tracts of these mineral lands. But with all this deposit of ore, and the great and inexhaustible deposits of coal to be found in the Cahaba and St. Clair coal fields, embracing nearly 3,000 square miles of the best quality, and lying along in close proximity to this road, being, as they are, the most southern coal fields in the United States; easy of access, soon to supply the Gulf ports and the West Indies with all these natural resources, two things more are needed—more labor and capital to develop these vast fields. It will come in time, and when it does come, when this field is developed as it should be, Alabama will become one of the wealthiest States in the South. Capitalists are daily looking for and making inquiries concerning this mineral region. Pittsburg, Cincinnati and St. Louis manufacturers are already finding a troublesome competitor in Alabama iron, for it is a fact beyond all controversy that iron can be made in Alabama, shipped to Cincinnati, Louisville or St. Louis, and sold at a profit for less than it can be manufactured for in those cities (a broad but truthful assertion, and one that will bear the fullest investigation). It ceases to be a matter of surprise why this locality is attracting so much attention when this very important fact is taken into consideration.

Relative to this inviting section of the State, a writer to a New York journal, of date Aug. 20, 1874, says:

"One word in answer to the oft repeated question—Can a Northern man come here and invest his capital with safety? and will he and his family be recognized socially? A Northern man myself, after nearly one year's residence among, and a daily association with, these people in their places of business as well as their homes, I unhesitatingly answer that a Northern man is most cordially welcomed. It is true that there is some feeling on the subject of "Carpet Baggers." Society here is very much the same as elsewhere, and honesty, integrity, good personal character are as necessary and as requisite passports in Alabama as they would be in Ohio. He who comes here to associate with the low and uneducated, who brings nothing with him except a desire for office, who makes that his capital and stock in trade, who obtains office at the hands of the negro, will undoubtedly find his social standing among those he associates with, and certainly ought not to complain of that. But if he comes to engage in legitimate business pursuits, no matter what that pursuit may be, if he desires to develop the mineral, agricultural or other interests of the State, he will not only be welcomed, but will find the business men of the South willing to lend any assistance in their power, and he may entertain any political belief that may accord with his idea of right.

"I must close this long letter by saying that Alabama is just entering upon a career of prosperity that will soon astonish some of the older States, and to the development of this mineral interest much of this prosperity is due."

Along the line of the South and North Railroad has sprung up also a varied industry. On the high table land in the county of Blount, upon this road, a successful German colony has been planted under the lead of Mr. Cullman, late of Cincinnati. The colony of Cullman is less than two years old, the first house having been built in April 1873, and now there are over sixty houses, and nearly two hundred and fifty families who migrated from Ohio, Indiana, Wisconsin, Kentucky, and even from Canada. They have grown fine crops of corn, peas and potatoes, and have set out thousands of fruit trees and grape vines. Mr. Cullman has several thousand grape vines, of ten varieties of grapes, imported directly from Germany, and says he will have wine of his own vintage. There is a fine vein of coal on the land, and abundance of timber. In the tract is over forty thousand acres of land, running eighteen miles north and south, and thirty miles east and west. There are two saw mills, a chair factory, a tan yard, three general merchandise stores, two hotels, three beer saloons, a Lutheran and Catholic church. Soon there will be a Swiss cheese factory and a lager beer brewery, with carriage and furniture factories. The colonists are well satisfied, and determined to make the colony a success. They are much interested in the matter of bringing immigrants to Alabama.

"Strasburg," is the name of a new colony established February 1875, in Chilton county, on the line of the South and North Alabama Railroad, equi-distant between Lomax and Jemison. The settlers are Germans and Englishmen, and, with their families, now number about thirty people. These immigrants are from the Northwest. They have secured about two thousand acres of land, wholly unimproved, and in the heart of the pine forest, from the South and North Road, and are now clearing the soil and erecting houses—in a word, making a home for themselves and building up a town—"Strasburg"—where now there is almost a wilderness. The first pioneers having arrived, with their families, and gone to work with a determination to succeed, it is expected that many others will follow them, so that very soon "Strasburg" will be numbered among the thriving villages of Alabama, and will go forward in generous rivalry of "Cullman."

These new settlers are greatly pleased with the climate, soil, water, timber, and the people of Chilton county. They speak in glowing terms of the kindnes and generosity of the people whom they have met in Alabama and the South, and are well pleased with their new home. Everything betokens success. The South and North Road is doing all in its power to encourage immigration and to develop the great resources of Alabama along its line.

The most remarkable evidence of the claims of Alabama upon enterprise and capital, and the recognition of these claims, is afforded by the growth of Birmingham at the crossing of the two great Alabama roads. The survey of the land was commenced April 20, 1871, and the lots for a city offered for sale June 1, 1871. In the December following, the city of Birmingham was chartered by the Legislature, with a population of from seven to eight hundred, drawn from the best material of this and adjoining States, and having one hundred and twenty-five houses, all well built and of good material; among them were a railroad hotel, built by the Elyton Land Company, temporarily, upon the railroad grant, with thirty-seven rooms; seventeen two and three-story brick stores completed and in progress; thirty-five frame stores of one and two-stories; sixty dwellings, many of them creditable to a city of much larger growth and matürer age; two planing mills, one in successful operation and the second about ready to start, and one to manufacture sash, doors, blinds, &c.; two grist mills in rapid progress of erection; one newspaper and job printing office; one extensive livery stable; five boarding houses; two bakeries; two restaurants; and all the other accompaniments to a thriving and prosperous city, including express, telegraph and post offices.

By February, 1873, Birmingham had grown to a population of 4000, with about 500 houses, of which 54 were brick or stone (none less than two stories high), and about 125 frame stores; the remainder consisting of 250 neat and substantial brick and frame dwellings, six church edifices—which were erected by her own citizens almost entirely without assistence from abroad—two public halls; four hotels, of from ten to thirty rooms each; several private boarding houses and restaurants; a national bank in successful operation; several manufacturing establishments; and all the other concomitants which go to make up a thriving and prosperous city.

In his first annual report, January 25, 1872, Mr. James R. Powell, president of the land company which founded Birmingham, said:

"The adjacent mineral interests are also in rapid course of development. Irondale is about ready to begin the manufacture of iron on an extensive scale, having been leased for a term of years to Messrs. McKee, Thomas & Co., of Pennsylvania, who will manufacture there the machinery necessary for the development of very extensive mineral interests of David Thomas & Sons, in this vicinity. The Messrs. Hillman, the largest iron manufacturers in the South, are also making preparations for the manufacture of iron on their property adjoining that of your company. Red Mountain Iron Works, which have been dormant since the war, will also, it is hoped, be put in operation the present year. Messrs. Woodward, of Wheeling, Virginia, and Spalding, of Steubenville, Ohio, are also largely interested in mineral lands in this vicinity, and, with other iron masters from other States, are only waiting completion of proposed competing lines of transportation to this point to begin operations in this vicinity.

"Your president had several very interesting interviews in December last with two very intelligent iron masters from old England, Messrs. Snellus & Jones, representing respectively the immense iron furnaces and foundries in the South of Wales, and the Cleveland iron districts of England, the two largest in the world. Ten thousand operatives are employed in each of their establishments, and they mine into the bowels of the earth 1,500 feet for their coal and iron ore, except when they transport their ore 1,500 miles from Spain and Portugal as a matter of economy. This is the distance iron ore is transported from the West to Lehigh and Pittsburg, Pennsylvania, the locations of the largest iron manufactories on this continent.

Those practical and experienced gentlemen were delegated by the iron masters of Europe, who work together in a league in all matters which concern their general and material interests, to come to this country and examine critically all the iron regions of the United States, and representing directly the two most successful and largest iron manufactories in the world, they visited the iron regions of Pennsylvania, Ohio, Missouri, Virginia, Kentucky and Tennessee, and, after examining this vicinity for five days, they assured me that they had never seen a locality where all the raw materials for the manufacture of iron, including the different varieties of ores, the coal for smelting, the limestone for fluxing, the sandstone for furnace building, and the abundant supply and easy accessibility of water for use about furnaces, foundries and rolling mills, could be found in such happy contiguity. Their vivid descriptions of the impressions made upon them by the immense stores of mineral wealth everywhere exposed to their view here, are evidences satisfactory that they have here found, as they say by implication, if not in words, the "Eldorado" of iron masters."

In his next report, February 27, 1873, Mr. Powell said:

"The development of our mineral wealth, though not progressing as rapidly as could be desired, is still keeping pace with the general improvement of the country. The works at Irondale, under lease to the Jefferson Iron Company, went into operation in February, 1872, have been since enlarged, and are now being again improved to increase their daily yield to double their original capacity. The works at Ironton have passed into the hands of a wealthy corporation, of which the Hon. Daniel Pratt is President, who has pushed the work of rebuilding with such characteristic energy, that they will very soon begin making iron with two furnaces, each of twenty to twenty-five tons capacity. This company has also constructed a narrow gauge railroad to their mines and are prepared to deliver ore to other parties desiring to build furnaces in that vicinity.

"Messrs. Hillman & Sons are almost ready to begin work on their property adjoining yours on the southwest, having been delayed much longer than was expected in perfecting their arrangements.

"Messrs. Tate and Prichard have also selected the location for their works, about one and a half miles from the centre of the city, and will begin work at once upon a furnace or rolling mill.

"David Thomas and Sons, of Lehigh, Pa., propose erecting three furnaces on their property, one adjourning your property, and two at Roup's Valley.

"Messrs. Woodward and Spalding, of Wheeling, West Va., and Steubenville, Ohio, have also made additional investments near here, and have examined the localities with a view of building a furnace, rolling mill and nail factory.

"A. P. Cochran, of Louisville, is mining ore in Red Mountain and shipping it to the Western cities as fast as transportation can be had.

"Messrs. Giles, Edwards & Co , are building a furnace in Roup's Valley, as are, also, Messrs. B. B. Lewis & Co., while the Central

Iron Works, at Helena, on the South and North Alabama Railroad, will soon be making merchant iron, under the management of Messrs. Fell & Co.

"Other parties have also invested in mineral lands near here, among whom are Messrs. Peacock & Steiner, and Messrs. Packer, Fritz & Co., of Pennsylvania, and Herring & Ostrander, of New York.

"And there is now here on the same business, Captain M. L. Potter, who is connected with the Griswolds, of New York, and who has recently employed Professor Mills, of St. Louis (one of the foremost mineralogists of the country), to make a thorough scientific examination of this country, the result of which, with accurate analyses, Captain Potter is now expecting to receive before making his final location. There are also here Messrs. Jones and Pitblado, from Canada and Nova Scotia, the former a brother of the gentleman who was here in December, 1871, from the Cleveland iron district of England, and brings me letters from him. These gentlemen are more particularly interested in coal mining, and are now examining our coal fields. I have also recently had the pleasure of meeting Mr. C. Donkersly, the owner of two iron furnaces at Appleton, Wisconsin, and Marquette, Michigan, who is spending the winter in New Orleans on account of his health, and was so much interested by what he saw during his stay here, that he has determined to return as soon as his health will permit, and make a thorough examination of the country.

"The coal interests are also receiving proper attention. Major J. A. Curry and Mr. A. P. Cochran, are each sinking shafts to the coal, one at Cunningham's and the other at Turkey Creek, and Mr. W. A. Gould and Messrs. Hiram Haines and Jno. T. Milner are opening mines at Morris' and Vann's stations, on the South and North Alabama Railroad, respectively, while the Pioneer Coal Company, of which Dr. S. C. McIntire is President, and J. T. Pierce, Esq., is Superintendent, is in full operation at Warrior station, and prepared to fill all orders for which transportation can be obtained. In the Cahaba coal fields, along the line of the South and North Alabama Railroad, several mines are worked by various parties.

"Since writing the above I have the pleasure to state that Capt. M. L. Potter, of New York, of whom mention has been made, has after a very careful scientific examination of this section and analysis of the minerals by Prof. Mills, selected a location and is preparing to erect a furnace southwest of Birmingham.

"Capt. Potter informs me that Prof. Mills regards Red Mountain as the most remarkable deposit of iron ore in point of quantity and accessibility he has ever seen, and in quality he says it classes with the richest ores in the country, being equal to Pilot Knob in Missouri.

"The iron made from these ores, he thinks, will be just the quality needed to mix with that made from the Missouri ores to make good workable foundry iron, and will take the place of Scotch pig, which is now imported from Scotland at great expense for this purpose.

"Prof. Mills says further that there is no coal in the Missouri Valley that will coke, and that the Warior coal, being good coking coal, is the most accessible for this purpose to Missouri, the center of the field being only eighty miles from Pittsburg Landing on the Lower Tennessee, from which point to St. Louis navigation is perfect at all seasons. Hence we reasonably conclude that all the coal used in the manufacture of iron in Missouri will be drawn from this locality.'

The growth of the mineral region of Alabama, while more noticeable because of the new railroads which have opened it up to the world, has not been greater than that of the other regions of the State. The valley of the Tennessee has invited a large number of immigrants, and the lands of that section are rapidly rising in value equal to that of similar lands in Tennessee, Kentucky and southwest Virginia.

The cotton region, has, notwithstanding the damaging character of negro labor, grown more cotton than before the war. The estimate for the present year gives the front position to Alabama among the cotton producing States. She has recovered her old place and now furnishes one-fourth of all the cotton grown in America. What she has lost by the decadence of negro labor, she has more than recovered by the growth and expansion of white labor.

There has been a corresponding growth in the timber and coast region. The lumber and turpentine interests have largely increased, and the production of early vegetables and fruits for Western market has grown into a vast and most lucrative business.

THE PORT OF ALABAMA.

Situation of Mobile—Advantages of her Harbor—The true mouth of the Mississippi Valley—Nearest to the Grain Centres—The only Anchorage for deep Shipping—The door-way for New Orleans—Exports from the West—Imports from Europe.

Mobile is the only seaport of the State of Alabama. It is situated at the mouth of the Mobile River, and is in lat. 30 deg. 41m. 48s., long. 87 deg. 59s.

It is a port well situated for commerce, lying at the inner extremity of a noble bay, affording free communication with the Gulf of Mexico. This bay, which runs inland for thirty miles, affords anchorage, at the lower harbor, for vessels of 22 feet. No dockage or wharfage is charged to vessels loading or unloading at wharves. The port charges are as low as those of any port on the Gulf or Atlantic, and in some cases they are lower. The main railways run down to the front of the city, where is the dock, with a capacity for vessels of 1,000 tons.

The population, according to the census of 1870, was 32,034. By a more recent report from the Health Officer to the City Boards the number given is 42,000.

Various works have been going on for the opening of the bay and harbor of Mobile. The works have been aided by appropriations by Congress, and the harbor obstructions have been, to a great extent, removed by dredging.

The Mobile and Montgomery Railroad having been completed to Mobile, the communication of the city with the northeastern portion of the State has been improved. The great coal and iron developments, referred to elsewhere, existing in the State, and the progress of the Alabama Grand Trunk Railroad, taken together, will doubtless have a great effect upon the future of Mobile. These great stores of mineral wealth will, when they become more widely known, undoubtedly attract capitalists to the State, and the greatly augmented wealth of Alabama must result in an augmentation of the business and prosperity of Mobile.

The lumber business is growing at Mobile, and at no far distant day the export of lumber will be a great item. There has been a great foreign demand for it, but the obstacle has been the lack of vessels.

The most commanding article of trade affecting the condition of Mobile is, of course, cotton.

In Mobile it is a recognized fact that the planter can get more for his cotton than at any other seaport. The charges are low, as low as the bales could be handled for, and the prices on a parity with any place in the United States or abroad. Cotton finds buyers for English, French, German, Spanish, Russian, and other foreign account.

It has been announced that the Illinois Central Railroad, in connection with the New Orleans and Great Northern Road, propose to establish a steamship line from New Orleans to Liverpool for the shipment of grain.

If this route is practicable, it would be far more practicable for Chicago to export grain by way of the Mobile and Ohio Railroad, and from Mobile Bay.

It would be still more practicable for St. Louis to ship grain from Mobile Bay, than it is for Chicago to ship from New Orleans. But the shipment of grain in bulk, and directly from the cars into the holds of the great grain carrying vessels at Mobile Bay, presupposes the construction of a short railroad of thirty miles from Mobile to the Lower Bay, inside or outside of Dauphin Island.

TABLE OF DISTANCES.

From Chicago to New Orleans	913 miles.
From Chicago to Mobile	857 miles.
From Chicago to Dauphin Island	897 miles.
From Chicago to Mouth of Mississippi	1,013 miles.
From St. Louis to New York	1,084 miles.
From St. Louis to Mobile	669 miles.
From St. Louis to Dauphin Island	699 miles.

TABLE OF FREIGHTS.

In the St. Louis "Republican," of January 23, 1875, the rates of freight from St. Louis are quoted as follows:

By Rail, Eastward, to	N. Y.	Phil.	Balt.	N. O.	Mobile.
Flour, per barrel	1.06	96	86	90	75
Grain, per 100 pounds	53	48	43	45	37½

Mobile Bay presents the nearest and cheapest shipping point for all the country north and west of a line drawn from St. Louis to Chicago. It is beyond that line that the great bulk of surplus grain is produced.

In order to ship Western grain, however, the cars must run directly to deep water, and transfer the grain into the holds of vessels drawing not less than 20 feet. Inside of Dauphin Island there is a depth of 20 feet, and outside of that island, by the construction of an artificial break-water, such as has been built around many harbors in the old world, there could be secured a depth of 36 feet.

The cost of the Bay Road, and an artificial harbor south of Dauphin, and west of Pelican islands, would be $2,500,000. The cost of the Bay Road, and the necessary works to reach 20 feet of water within Dauphin Island, would be $1,710,000. The construction of the thirty miles of track to reach Dauphin Island would be an easy work. The country is level. But few bridges would be necessary, and the timber for the work could be obtained upon the line of the road. A half million of dollars ought to build and equip the road. When the bay is reached, it becomes the duty of the Government to aid in building the break-water and docks. Here would be the coaling station for the navy, and a rendezvous in time of war. Here, if any strong naval power should be an enemy, and the Gulf should be blockaded by a hostile fleet, would be the docks at which the civil and military steam marine would receive supplies. The Mobile and Alabama Grand Trunk Railroad, piercing the magnificent coal fields of Alabama, would bring by the shortest line, and on a down grade, enough coal to supply the entire shipping of the Gulf. Here, too, the commerce of New Orleans would seek safe, ample and expeditious shipping. The cost of transportation to this bay from New Orleans, by the Mobile and New Orleans Railroad, would be less than towage and insurance to the mouth of the Mississippi. Without estimating the grain from the West, and the coal from Alabama, which would at once seek deep water, this Mobile Bay Railroad would derive an income from the following sources, which would make it one of the best paying roads in the United States:

Mobile Cotton, say 300,000 bales, at 30 cents per bale	$ 90,000
New Orleans Cotton, say 250,000 bales, at 30 cents per bale	75,000
Lumber	50,000
Passengers and Mails	50,000
Imports	100,000
	$365,000
Deduct 50 per cent. for Expenses	182,500
Leaving a net profit of	$183,500

or more than ten per cent. on the cost.

The construction of this road is essential to the grain-growing regions of the West, and should enlist at once the hearty support of St. Louis.

From the report of the United States Senate Select Committee on Transportation Routes to the Seabord (Senator Windom, chairman), we find that the average rates of freight *per bushel on wheat* for 1872, was as follows:

From Chicago to New York, by rail	$ .33.5
From Chicago to New York, by lake and canal	.26.6
From New York to Liverpool, by steam	.19.2
From New York to Liverpool, by sail	.16.5
From St. Louis to New Orleans, by river	.13.9
From New Orleans to Liverpool	.27.0

The cost of transporting a bushel of wheat from Chicago via New York to Liverpool is 43 cents 1 mill; from St. Louis via New Orleans to Liverpool is 40 cents 9 mills.

Including transfer charges and marine insurance the cost of a bushel of wheat would be from Chicago to Liverpool, via New York, 51 cents 7 mills; from St. Louis to Liverpool, via New Orleans, 47 cents 3 mills.

By way of Mobile Bay the St. Louis shipper would undersell the Chicago shipper by from five to six cents upon each bushel of wheat exported to Europe, and would save ten cents per bushel on wheat and eight cents upon corn difference between this route and the eastward rail route. The saving of ten cents per bushel upon wheat means a saving to the wheat-growing country tributary to St. Louis, of not less than $7,000,000 annually. The saving of eight cents per bushel upon corn means a saving to St. Louis of $8,000,000 annually.

To effect this saving St. Louis could well afford to aid Mobile in constructing a railroad and docks, which will accommodate the largest ships of the world.

In the above estimate of the business of the Mobile Bay Railroad, the number of bales of cotton seeking export has been placed at 300,000. This is an exceedingly small estimate. It is believed that the cotton of New Orleans could be shipped from this harbor at less cost than from New Orleans. The cost of the hundred miles of navigation below New Orleans, towage over the bar, the impossibility of large ships crossing the bar, and the frequent delay of all classes of shipping at the Passes, make the overland carriage to Mobile Bay cheaper and more expeditious. There is every reason why Mobile Bay should become the principal harbor for the imports and exports of New Orleans. Before the Windom Transportation Committee, Geo. N. Stewart, Esq., a distinguished lawyer of Mobile, testified:

"When we built the Mobile and Ohio Railroad, we sent for the most accomplished engineer in the United States, telling our agents not to mind the price; but to get the ablest engineer they could find. That was Mr. Childs, of Massachusetts. When he left us he said—"I leave you, but I want to make a prediction to you; the day will come when the freight of New Orleans will all be shipped in Mobile Bay." He says, "I admit engineering can accomplish almost anything, but there is one trouble that New Orleans has beside the mouth of the Mississippi. It has a hundred miles of heavy current of the river, requiring an extensive steam power to tow all ships, and that nothing can overcome. You, with a railroad that is upon a dead level from New Orleans into Mobile Bay, can carry a bale of cotton for so much less that you will beat New Orleans. One train can carry a shipload."

With this road constructed and equipped there would be nothing in the way of St. Louis and Chicago shipping their surplus grain directly from Mobile.

For all the grain west of the Missouri river, the port of Mobile would be the nearest for shipment. Of course it is impossible to estimate the amount of Western grain which would pass over the Mobile Bay Railroad. During the years 1872–73 there were exported from New Orleans to Great Britain 651,528 bushels; to Cuba 310,737 bushels; and to other foreign ports 167,807 bushels; and to the North Atlantic ports 149,395; making a total of 1,279,467 bushels. When we reflect that the apparent surplus of wheat available for shipment from the Northwestern States was in 1870 more than 130,000,000 bushels, and that the surplus of corn was more than 300,000,000 bushels, we see at a glance how insignificent is the present shipment to New Orleans, and what great possibilities are presented by a commodious harbor at Mobile, open at all times to the great grain-carrying ships. If we should say that in a few years we would ship a million bushels of grain from St. Louis, there would be nothing extravagant in the conjecture. Year after year the shipments would increase by the millions, just so fast as vessels learn that they can be loaded with despatch and will meet with no obstructions.

The construction of this road is the only improvement needed to make Mobile the great depot and entrepot for the provisions exported from the West, and the wares imported from Europe and South America. The Gulf stream connects the mouth of the Amazon and the Bay of Mobile. It is from this port that South America would seek the million barrels of flour annually shipped thither from the United States. It is to this port that the manufacturers of Europe would come to pay for Southern cotton and for Western grain.

The Manchester, England, "Examiner" contained recently an article in relation to the best outlet for the grain crop of the Mississippi Valley, in which the route by way of New Orleans was advocated. An Englishman, who is well informed, thus supplements the article mentioned, by a communication in the "Examiner" of a late date:

"The total grain crop of the United States has reached the vast sum of 1,000,000,000 of bushels, and the annual increase is at the rate of from 30,000,000 to 40,000,000 bushels. The Eastern States do not raise sufficient for their wants, and are obliged to draw upon the Middle and Western States for part of their supply. The surplus, therefore, upon which England must depend can only be found in the Mississippi Valley. The same facts apply to pork, beef, and very much of the other products of the soil, and to as till greater extent to cotton, as we shall show, by your permission, when treating of that staple. Now, as England must look to the Mississippi Valley for so much of her food supply, she is deeply interested in learning how she can get it at the least cost."

The writer then proceeds to say that the following figures are taken from published freight rates, and gives time and cost of transmit from St. Paul, 2,000 miles above New Orleans, to Liverpool by the two routes:

	COST PER BU.	TIME.
	CENTS.	DAYS.
From St. Paul to Chicago	18	4
Lake from Chicago to Buffalo	8	6
Canal from Buffalo to New York	14	24
New York to Liverpool	16	12
Elevator or trans-shipment charges, Chicago	2	2
Elevator or trans-shipment charges, Buffalo	2	2
Elevator or trans-shipment charges, New York	4	2
Total	61	52

	COST PER BU.	TIME.
	CENTS.	DAYS.
From St. Paul to New Orleans, via river	18	10
New Orleans to Liverpool	20	20
Elevator charges, New Orleans	2	1
Total	40	31

This difference in favor of New Orleans prevails to a greater extent in favor of the route from St. Louis to Mobile by rail. The "Examiner" is evidently casting about for a route to the Mississippi Valley by way of the Gulf, and what it says of the river route by way of New Orleans may be held good by the more economical and certain route by way of Mobile Bay and of the Mobile and Ohio Railroad. The "Examiner" writer says:

"Should any of your readers ask why grain is not shipped by this route—*i. e.*, via New Orleans—please say it is because British manufacturers and merchants, having established their agencies in New York and other Eastern ports, persist in sending their goods there, and, the ships being there, the grain must be sent to meet them; and yet, as we have shown, the Mississippi Valley is the best market for those goods. Many of the ships that go to New Orleans for cotton go in ballast, and would take out goods at very low rates. The Mississippi barges nearly all return up the river, for 1,000 or 1,200 miles, empty, and would be glad to take goods at almost any rate. Ships cannot go to New Orleans for grain and take nothing out but ballast, but were the goods now sold in the valley sent directly to the Mississippi River, grain would find its way to Liverpool at the rate given above, and a vastly increasing demand for British goods, in consequence of reduced freight rates, would be immediately felt. Is not this a subject worthy of the serious consideration of your chambers of commerce, and of all Manchester manufacturers? Do they not see in this a powerful means of solving the great labor question by cheapening the poor man's loaf? Is not this question worthy of consideration in connection with reduction in the cost of production and the benefit of employer and employed, by enabling them to hold their own in the midst of foreign competition?"

ALABAMA AS A HOME FOR THE IMMIGRANT.

Inducements from soil, climate and production—Evidence from political opponents—The peace of society—Law and order—Favorable safeguards of law—The Pre-emption Law—How to secure a home.

Thus we have shown the resources of Alabama, her boundless minerals, fertile cotton fields, salubrious climate, and splendid system of water courses and railroads. The lands of Alabama can be purchased by the immigrant at low rates—for a mere song compared with the profits which the laborer can realize in a single season.

The value of the lands, the other inducements offered to immigrants, and the order of society, are thus vouched for by an Administration journal, the Washington *Chronicle*, of the 24th November, 1868:

"Not a tithe of the lands in the South are really occupied. Let Northern men buy these lands and settle upon them, and in nine cases out of ten they will have done much better for themselves than if they had gone to the far West. The South needs capital, manufacturers, and all kinds of skilled labor. The North, from her abundance, can supply these wants, and mutual benefit will be the result.

"The vast mineral wealth of the south lies almost wholly undeveloped, while Northern men are besought to come with their skill and capital and take it at fabulously low prices. Why will not our Northern people muster the courage to come and see for themselves the inviting field that opens before them? The larger portion of the South is as quiet to-day as their own quiet homes in the North. And then they should remember that emigration carries safety with it.

"If our people would but dismiss their fears, and go to the South as they now go to the West, they would meet a cordial welcome from thousands of Northern people already there, all the loyal Southern people, and a large share of those who took side with the rebellion, while the insignificant Kuklux Klans would disappear like the mist of the morning.

"Northern and Southern people living side by side, and mingling in business intercourse, would soon forget the prejudices that now divide them. Reciprocal benefits will produce reciprocal good feeling."

It is gratifying to see such language as this in a journal which wields so large an influence at the North. The testimony of the witness is the more important when it is seen that in the same copy of the *Chronicle*, the author of the above statement is represented, in a letter from Mr. John W. Forney, the editor, as "an advanced and intelligent Radical, believing in his politics as he does in his religion." Mr. Forney says of this gentleman:

"I have just had a long and somewhat remarkable interview with the writer of the subjoined communication, and I print it because it confirms many patriotic hopes and dispels many grave apprehensions. The writer has resided in the South for nearly three years, and is at the head of a flourishing foundry and machine shop in one of the prosperous Tennessee towns. He is an advanced and intelligent Radical, believing in his politics as he does in his religion. Without being a partisan in any sense, he never conceals his sentiments. He says he has never been disturbed, nor even menaced, for uttering them in trains, steamboats, hotels and the streets. He insists, as you will perceive, that the Southern people should not be condemned for the outrages of their own ruffians, and declares that by this rule no community could escape—certainly not the West, judged by the recent excitements in Kansas." He continues:

"Why should not the South be the favorite home of the emigrant —not only the German, the Norwegian, the Irishman, the Scotch-man, and the Englishman, but, above all, the Northern manufacturer and mechanic?

"In the South there are not only hundreds of thousands of acres of land to be had for almost nothing, but there are open highways, a civilized people, and a thousand other advantages unknown to the new and far-off West. Before the war, capital and labor sought the South eagerly. The daring Commodore Stockton spent an immense fortune in trying to develop the gold mines of North Carolina. Virginia was the centre of at least one great enterprise that attracted millions of foreign money. Heavy outlays were made in the iron and coal mines of Tennessee and Alabama. Northern men flocked in by hundreds, almost by thousands, to take advantage of the fine opening for skilled workmen. But the war came and stopped all, ruining many, and driving away more.

"All this is over. A better state of things has succeeded. The wealth of the soil has been reinforced by the wealth of a great moral victory. The gold mines of North Carolina, the coal and iron mines of Virginia, Tennessee, Alabama, and Georgia; the magnificent plan of connecting the Chesapeake with the great internal rivers of the South—all these await capital and courage. But the South proffers other opportunities. Look at the hundreds of thousands of swamp lands to be drained by the agencies of science; at the thousands of alluvial acres in Delaware, Maryland, and Virginia (all near the Eastern markets), and at the town sites without number! Look at Mississippi, South Carolina, Louisiana, Texas, with their cotton and sugar fields, marl beds, grazing lands, noble rivers, and equal climates! What is needed is emigration."

There have been no civil disorders in Alabama since the close of the war. Men of worth, from all sections of the Union, and all parts of the world, are cordially invited to make their homes among us by all political parties. The wheels of State Government have never ceased to run smoothly, nothwithstanding the changes of policy and the deep contrariety of political opinion. Wm. H. Smith, Governor of Alabama from 1868 to 1870, who took his seat under the reconstruction laws of Congress, testified in a public speech, at a time when the passion of partisans was being fully aroused by an absorbing Presidential election, that the people of Alabama are law-abiding. Probably in no State of the Union—North, South, East or West—have fewer crimes occurred since the war than in Alabama.

Before a Congressional committee at Washington, January 28, 1875, J. P. Southworth, of Mobile, testified that "he was appointed United States District Attorney for the Southern District of Alabama, by President Grant in 1869; that he went to Alabama from Illinois in 1868; was and always had been a Republican; had spoken during the last political campaign in Selma for the Republican State ticket; thought he knew the general condition of the State as well as any one could; his professional duties took him to all parts of it; there was no county in which a Republican could not live and advocate his political principles, even offensively, without molestation; the effect of sending troops to the State was injurious, and there was no time when they were needed, or when the country would not have been better without them; was a Carpet-bagger, a Republican, and had been a Federal officer, and was not ostracised."

In regard for public morality, in submission to existing laws, in courtesy to strangers, in solicitude for the kindest relations with the people of the North, in ardent desire for foreign immigration, in enterprising spirit, and in the industry of her people, Alabama challenges comparison with any other State in the Union. She holds nothing back in a spirit of chagrin or revenge; but invites every one to join in her destiny and share her advantages.

She knows that identity of interests produce identity of ideas and a harmony of action in all the walks of life.

With such views her Legislature have enacted laws for the peculiar encouragement of immigrants, and especially of laborers.

Mechanics have a lien upon the article they fabricate, for the payment of their labor.

Agricultural laborers are allowed a lien on the respective crops cultivated by them, to the extent of the value of such labor, whether it be rendered in consideration of money, wages, or for a share in the crops; such lien to attach from the planting of the crop, and to be subordinate only to liens for rent of the land on which such crops are grown.

The laws exempt from taxation the buildings and machinery of iron furnaces, foundries, rolling mills, machine shops, nail and axe factories, tanneries and manufactories of leather goods, paper mills, glass works, stove and earthenware factories, woollen, silk and cotton factories.

They exempt from execution for debt, 160 acres of land and property in the country, as a homestead for each head of the family, of the value of $1,500, and in the cities a homestead of the value of $2,500.

They guard the property of married women with scrupulous fidelity, and forbid the alienation ot their separate estate for the husband's debts, even with their own consent.

They foster education by providing a thorough system of public schools, and by securing to the support of the schools a most liberal revenue.

It must be kept in mind that many thousands of acres of Alabama lands are still open to pre-emption—many of them excellent pine lands with good subsoil of clay, upon which scientific culture has been able to produce two bales of cotton to the acre—others of them in the hills where the foot can not tread without trampling upon mines of untold wealth.

It is the desire of Alabama, and also the policy of the Federal Government, that these lands should be settled up with thrifty laborers.

Why should the man who lives by the sweat of his brow go to the Western wilds, away from the comforts of society, away from the haunts of civilized life, to a region where his work is interrupted for several months of the year, and where his wife and children are not able to assist him in outdoor employment, except for a short season ; when here in the heart of an old country, convenient to markets, directly on great highways, he can find a home equally as cheap, more productive, and where the genial climate permits the year's labor to be distributed over all the months more equally, and to be borne by even the most delicate ot the household ?

It would seem that the emigrant who seeks the headwaters of the Mississippi and the Missouri, rather than the genial banks of the James, the Tennessee, the Alabama and the Tombigbee, prefers frost to sunshine, and a difficult to an easy market. Forty acres of land in the cotton belt of Alabama would make a fortune for an emigrant in a few years, if he were to cultivate them with the same diligence with which he cultivates his corn in the Northwest. Upon his forty acres of Western prairie he could make his fifty bushels of corn to the acre, sell it for twenty-five cents per bushel at his crib, and die poor, although he might pass life comfortably. On the same quantity of cotton land, the emigrant might certainly make, by skilful and laborious attention, his forty bales of cotton, and become independent in a few years.

For the benefit of emigrants who desire to enter homesteads in Alabama, it is important to give the facts connected with the mode of securing the advantages of the " Homestead Act."

That Act provides, that any citizen, or one who has taken the necessary steps to become such, or a widow, or the head of a family, or any person that has served fourteen days in the army or navy of the United States, or any person twenty-one years of age, and dependent upon themselves for a livelihood, may acquire title to a home of not more than 160 acres; but upon the following conditions:

They must settle upon it and cultivate it for five consecutive years; a removal from it for six consecutive months vitiates the title, and the land reverts to the Government. Persons owning 160 acres can not enter land. Fees to be paid vary as the quantity to be entered, but in no case can the entire cost at entering, and payment to be made at the expiration of the five years for 160 acres, exceed 12½ cents per acre.

Persons residing a great distance from the office, or who may, by reason of bodily infirmities, indigence, or other good cause, be prevented from personal attendance at the office in Montgomery, can, by complying strictly with the following instructions, secure the land desired, at much less cost of money and time. Write to the Register of the Land Office, Montgomery, Alabama, describing the tract they wish to enter, giving number of section, township, and range, inclosing the fee of $2, upon receipt of which the necessary examination will be made in the office, and if the entry can be admitted, the proper papers will be made out, and sent by mail, to the applicant, with full instructions how to proceed to secure his or her entry, together with the information of what amount of money will have to accompany the papers after their execution by the applicant, which in all cases must be before the Probate Judge of the county in which the applicant resides. Upon the return of the papers to the office at Montgomery the entry will be recorded, and the Receiver's receipt and certificate of the Register will be sent to the parties, which completes the entry.

Land lying within fifteen miles, on either side of a railroad having a grant of lands, can only be entered as homesteads as follows: The odd numbered section can not be entered upon. If an entry is desired within the six mile limits of the railroad, 80 acres only can be had; if outside the six mile and within the fifteen mile limits, 160 may be had, at no greater cost than 80 acres inside the six mile limit, but only upon even numbered sections in both the cases above referred to. Outside the fifteen mile limits odd and even numbered sections may be entered upon alike.

Persons applying should remember that the "Act" requires the entry of a "compact body of land, according to the legal subdivision thereof." Hence, forty acre lots, cornering only upon each other, cannot be entered.

Land entered under the "Homestead Act" is not subject to taxation for five years from the date of entry, neither can the party entering dispose of it; any sale of it is regarded by the department as an abandonment of the claim, and the title reverts to the Government. If such sale be made before the title shall have been per fected by the five years residence upon it, and cultivation thereof, it can not be levied upon and sold for any debts contracted prior to the issuance of the patent, which patent can only be obtained at the expiration of the five years, and upon the certificates of two credible witnesses that the said appliacnt has resided there during the five years preceding the application for the patent.

For more detailed statements, as to the condition of Alabama, the reader is directed to the tabular statistics contained in the appendix. There he will see the condition of each county of the State as to population and resources.

APPENDIX.

STATE GOVERNMENT, (1874-76).

George S. Houston	Governor	Democrat.
Robert F. Ligon	Lieutenant-Governor	Democrat.
Rufus K. Boyd	Secretary of State	Democrat.
John W. A. Sanford	Attorney-General	Democrat.
Daniel Crawford	Treasurer	Democrat.
John M. McKleroy	Superintendent of Public Instruction	Democrat.
R. T. Smith	State Auditor	Republican.
Thomas Lambert	Commissioner of Industrial Resources	Republican.

JUSTICES OF THE SUPREME COURT.

Robert C. Brickell	Chief Justice	Democrat.
Amos R. Manning	Associate Justice	Democrat.
Thomas J. Judge	Associate Justice	Democrat.

GENERAL ASSEMBLY, (1874-76).

SENATE.

First District—Lauderdale and Limestone, Daniel Coleman, Postoffice, Athens.

Second District—Franklin, Lawrence and Colbert, J. B. Moore, Postoffice, Tuscumbia.

Third District—Morgan, Blount, Winston and Marion, W. H. Edwards, Postoffice, Chepultepec.

Fourth District—Madison, J. W. Grayson, Postoffice, Gurleyville.

Fifth District—Jackson, Marshall and DeKalb, A. Snodgrass, Postoffice, Scottsboro.

Sixth District—Cherokee and Calhoun, Thomas B. Cooper, Postoffice, Centre.

Seventh District—Walker, Jefferson and St. Clair, J. W. Inzer, Postoffice, Ashville.

Eighth District—Shelby and Bibb, R. W. Cobb, Postoffice, Helena.

Ninth District—Tuskaloosa and Fayette, J. M. Martin, Postoffice, Tuskaloosa.

Tenth District—Talladega and Clay, A. Cunningham, Postoffice, Talladega.

Eleventh District—Chambers, Randolph and Cleburne, J. J. Robinson, Postoffice, Lafayette.

Twelfth District—Tallapoosa and Coosa, J. A. Terrell, Postoffice, Dadeville.

Thirteenth District—Lee, J. T. Harris, Postoffice, Opelika.

Fourteenth District—Macon, *W. W. Glass*,* Postoffice Tuskegee.

Fifteenth District—Russell, *W. B. Harris*, Postoffice, Columbus, Georgia.
Sixteenth District—Bullock, *B. F. Royal*, Postoffice, Union Springs.
Seventeenth District—Barbour, *Jacob Black*, Postoffice, Eufaula.
Eighteenth District—Autauga and Elmore, *W. G. M. Golson*, Postoffice, Prattville.
Nineteenth District—Montgomery, *J. A. Farden*, Postoffice, Montgomery.
Twentieth District—Lowndes, *J. W. Jones*, Postoffice, Benton.
Twenty-First District—Dallas, *Jerre Haralson*, Postoffice, Selma.
Twenty-Second District—Perry, *A H. Curtis*, Postoffice, Marion.
Twenty-Third District—Hale, *J. K. Greene*, Postoffice, Greensboro.
Twenty-Fourth District—Greene and Pickens, *Lloyd Leftwich*, Postoffice, Forkland.
Twenty-Fifth District—Sumter, W. G. Little, Jr., Postoffice, Livingston.
Twenty-Sixth District—Marengo, *J. W. Dereen*, Postoffice, Demopolis.
Twenty-Seventh District—Choctaw, Clarke and Washington, S. Walton, Postoffice, DeSotoville.
Twenty-Eighth District—Mobile, Peter Hamilton, Postoffice, Mobile.
Twenty-Ninth District—Baldwin and Monroe, J. D. Driesbach, Post. office, Tensas.
Thirtieth District—Wilcox, R. H. Ervin, (Deceased).
Thirty-First District—Butler and Conecuh, Edmund W. Martin, Postoffice, Evergreen.
Thirty-Second District—Covington, Crenshaw and Pike, W. H. Parks, Postoffice, Troy.
Thirty-Third District—Coffee, Dale and Henry, J. M. Carmichael, Postoffice, Ozark.

*Names of Republicans in italics.

HOUSE OF REPRESENTATIVES.

Autauga—*J. E. Bozeman*,* Postoffice, Prattville.
Baldwin—Joseph Nelson, Postoffice, Mobile.
Barbour—J. E. Crews, Postoffice, Clayton ; J. S. Espey, Postoffice King's; W. Andrews, Postoffice, Newtopia.
Bibb—J. W. Davis, Postoffice, Centreville.
Blount—E. Aldridge, Postoffice, Bangor.
Bullock—*Perry Mathews*, *Charles Smith*, Postoffice, Union Springs ; *G. W. Allen*, Postoffice, Enon.
Butler, J. F. Tate, Postoffice, Georgiana.
Calhoun—L. W. Grant, Postoffice, Jacksonville.
Chambers—W. T. Harris, Postoffice, Lafayette ; Joseph Stevens, Postoffice, Millton.
Cherokee—W. T. Bell, Postoffice, Gaylesville.
Choctaw—Thomas Bonner, Postoffice, Isney.
Clarke—F. W. Baker, Postoffice, Jackson.
Clay—J. D. Barron, Postoffice, Ashland.
Cleburne—O. W. Shepard, Postoffice, Arbcoochee.
Coffee—M. C. Kinmey, Postoffice, Elba.

Conecuh—N. Stalworth, Postoffice, Evergreen.

Colbert—Barton Dickson, Postoffice, Dickson Station.

Coosa—R. K. Gulledge, Postoffice, Rockford.

Covington—T. W. Straughn, Postoffice, Rose Hill.

Crenshaw—J. P. Rousseau, Postoffice, Lion.

Dale—L. Edwards, Postoffice, Ozark.

Dallas—*D. E. Coon*, *W. H. Blevins*, *Jacob Martin*, *W. A. Brantley*, *Charles Harris*, Postoffice, Selma.

DeKalb—J. N. Franklin, Postoffice, Fort Paine.

Elmore—M. L. Fielder, Postoffice, Good Hope.

Fayette—J. C. Kirkland, Postoffice, Montcalm.

Franklin—W. M. Smith, Postoffice, Newburgh.

Greene—*W. E. Cockrell*, Postoffice, Eutaw; *J. O. Witherspoon*, Postoffice, Forkland.

Hale—*B. W. Reese. M. Wynne*, Postoffice, Greensboro.

Henry—H. Purcell, Postoffice, Columbia.

Jackson—W. J. Higgins, Postoffice, Larkinsville; Wm. McC. Maples, Postoffice, Princetown.

Jefferson—P. S. Greene, Postoffice, Elyton.

Lauderdale—S. D. Herman, Postoffice, Centre Station.

Lawrence—O. D. Gibson, Postoffice, Moulton; William Gilmer, Dry Creek.

Lee—W. J. Greene, Postoffice, Loachapoka; T. R. Leslie, Smith Station.

Limestone—J. M. Townsend, Athens.

Lowndes—*S. A. McDuffie*, *Wm. Gaskin*, *Samuel Lee*, Hayneville.

Macon—*A. W. Johnston*, Tuskegee'; *C. O. Patterson*, LaPlace,

Madison—G. P. Bierne, Huntsville; F. Rice, New Market; E. C. Betts, Huntsville.

Marengo—H. H. Woolf, Linden; D. M. Powell, Dayton; *A. S. Wood*, McKinley,

Marion—A. J. Hamilton, Pikeville.

Marshall—C. B. St. John, Red Hill.

Mobile—John Forsyth, D. C. Anderson, Leroy Brewer, Thomas H. Price, J. H. Rabby, Mobile.

Monroe—L. A. Barnett, Newton Academy.

Montgomery—*H. V. Cashin*, *E. R. Mitchell*, *E. Cook*, *W. Fagan*, *C. Gilmer*, Montgomery.

Morgan—M. W. Troup, Danville.

Perry—*G. S. W. Lewis*, Uniontown; *M. Boyd*, *J. T. Harris*, Marion.

Pickens—J. A. Billups, Carrollton; J. C. H. Jones, Windham.

Pike—R. C. Huey, Brundidge.

Randolph—W. D. Heaton, Carter's Store.

Russell—*D. J. Daniel*, Hurtville; *P. Gardner*, Granville.

St. Clair—F. Dillon, Cropwell.

Shelby—L. M. Wilson, Columbiana.

Sumter—*G. Bennett*, Livingston; *R. Reid*, Demopolis; *J. W. Bliss*, Gainsville.

Talladega—*A. C. Wood*, Fayetteville; *J. A. J. Sims*, Ala. Furnace.

Tallapoosa—D. A. G. Ross, Camp Hill; A. G. Holloway, Fish Pond.

Tuskaloosa—H. H. Brown, North Port; N. N. Clements, Tuskaloosa.
Walker—J. M. C. Wharton, Jasper.
Washington—W. C. Stribling, Liona Station.
Wilcox—*John Bruce*, *Willis Merriwether*, Prairie Bluff; *Elijah Baldwin*, Camden.
Winston—Willis Farris, Farrissa.

*Names of Republicans in italics.

STATE LEGISLATURE.

	SENATE.	HOUSE.	JOINT BALLOT.
Democrats	20	60	80
Republicans	13	40	53
	—	—	—
Democratic majority	7	20	27

COUNTY OFFICERS IN THE STATE OF ALABAMA.

COUNTY.	PROBATE JUDGES.	SHERIFFS.	CIRCUIT CLERKS.
Autauga	J. H. Booth	B. H. Booth	J. F. Roper
Baker	H. J. Callen	W. L. Campbell	F. P. March.
Baldwin	W. H. Gasque	A. C. Chandler	W. H. Gasque.
Barbour	W. E. Jones	B. F. Hart	J. C McNab.
Bibb	J. Gardner	C. F. James	J. W. Owens.
Blount	J. W. Moore	Geo. D. Shelton	A. J. Ketchum.
Bullock	W. H. Black	W. Youngblood	Geo. Williams.
Butler	J. L. Powell	W. N. Flowers	R. Seale.
Calhoun	L. W. Cannon	A. O. Stewart	E. B. Douthit.
Chambers	T. M. Rowland	A. J. Barron	W. Burnett.
Cherokee	J. H. Leath	S. G. Williams	L. L. Cochran.
Choctaw	B. H. Warren	W. Woodward	J. C. Chapman.
Clarke	J. R. Wilson	E. S. Cobb	F. M. Moyler.
Cleburne	O. Bartlett	W. J. Alexander	W. P. Noel.
Clay	J. L. Williams	T. J. Strickland	J. F. Cole.
Coffee	Daniel Gillis	A. F. Kinnuey	A. Vaughan.
Conecuh	T. M. Walker	Jno. Angle	Geo. Christian.
Colbert	A. W. Ligon	J. G. Alexander	S.W. L. M'Cleskey.
Coosa	J. S. Bently	J. E. Pond	W. L. Smith.
Covington	A. J. Fletcher	J. A. Thompson	E. G. Riley.
Crenshaw	B. A. Walker	L. S. Knight	F. M. Codey.
Dale	E. Richards	N. Hughes	J. A. Adams.
Dallas	Jos. Gothard	C. N. Shelly	Thos. Walker.
DeKalb	P. A. Brandon	P. M. Frazier	A. F. Payne.
Elmore	J. A. Lancaster	E. Barker	J. W. Levins.
Escambia	A. W McMillan	M. McMillian	Jno. Rupert.
Etowah	L. E. Hamlin	T. J. Burgett	J. R. Hughes.
Fayette	B. H. Williams	A. A. Walden	H. M. Bell.
Franklin	S. S. Anderson	W. Brittan	J. W. Hooper.

Geneva	T. H. Yarbrough	W. D. Campbell	M. M. McAliley.
Greene	T. W. Roberts	W. Hall	J. A. Steele
Hale	Jno. Atkins	J. S. Tucker	F. M. Harris.
Henry	J. D. Appling	W. J. Weems	T. A. Trawick;
Jackson	N. Kyle	S. H. McMahan	A. H. Caperton.
Jefferson	J. C. Morrow	R. H. Haygood	R. S. Montgomery.
Lauderdale	Jas. Jackson	W. T. White	A. W. Porter.
Lawrence	J. H. McDonald	W. T. Couch	R. Y. Goodlet.
Lee	W. Williams	T. L. Sanford	E. H. Mathews.
Limestone	D. Sanders	J. A. Tillman	J. A. Moore.
Lowndes	J. V. McDuffie	J. E. Brewer	P. H. Owens.
Macon	P. S. Holt	C. H. Felts	A. S. Harper.
Madison	R. S. Spragin	R. Murphy	J. F. Deloney.
Marengo	J. W. Taylor	J. M. Curry	C. B. Cleveland.
Marion	J. D. Terrell	J. R. Hughes	G. W. Gann.
Marshall	T. A. Street	Z. Couch	F. A. Province.
Mobile	Price Williams, Jr.	D. T. Parker	F. Draxler.
Monroe	W. C. Sowell	B. M. Burns	Jno. Deloach.
Montgomery	C. W. Buckley	J. N. Murphy	J. B. Nettles.
Morgan	David Day	E. D. Poteet	J. R. Powell.
Perry	J. H. Speed	J. Munn	L. W. Temple.
Pickens	T. G. Williams	J. N. Blanton	W. G. Robertson.
Pike	U. L. Jones	J. W. Scarbrough	L. Reeves.
Randolph	D. L. Davis	Robert Merrill	R. H. Bolt.
Russell	S. O'Neal	H. B. Perry	W. A. B. Falkner.
Sanford	A. Cobbs	S. P. Kemp	J. R. McMullan.
Shelby	J. T. Leeper	F. Nelson	A. M. Elliot.
St. Clair	E. J. Robinson	W. T. C. Mooney	S. A. Wyatt.
Sumter	J. A. Abrams	B. B. Sanders	W. A. Wayne.
Talladega	W. H. Thornton	J. P. Warwick	J. Coker.
Tuskaloosa	N. H. Brown	E. M. Burton	R. C. Parrish.
Tallapoosa	A. D. Sturdivant	J. W. Walker	C. C. Phillips.
Walker	J. R. Sheppard	G. H. Guttery	P. C. Larkins.
Washington	E. H. Gordy	Z. T. Clements	B. F. Porter.
Wilcox	W. Henderson	De F. Richards	A. L. Morgan.
Winston	A. B. Hays	W. J. Chapman	F. C. Burdick.

JUDICIAL CIRCUITS OF ALABAMA.

First Circuit—Perry, Dallas, Bibb and Hale.

Second Circuit—Lowndes, Montgomery, Elmore, Chilton and Autauga.

Third Circuit—Jefferson, Tuscaloosa, Marion, Fayette, Winston and Walker.

Fourth Circuit—Lauderdale, Limestone, Lawrence, Franklin, Colbert, and Morgan.

Fifth Circuit—Madison, Jackson, Marshall, Blount and DeKalb.

Sixth Circuit—Mobile, Baldwin, Washington and Clarke.

Seventh Circuit—Choctaw, Pickens, Sumter, Marengo, Greene and Jones.
Eighth Circuit—Pike, Coffee, Dale, Henry, Barbour and Bullock.
Ninth Circuit—Chambers, Tallapoosa, Lee, Russell and Macon.
Tenth Circuit—Randolph, Clay, Talladega, Shelby and Coosa.
Eleventh Circuit—Butler, Monroe, Wilcox, Conecuh, Covington and Crenshaw.
Twelfth Circuit—Cherokee, Baine, St. Clair, Calhoun and Cleburne.

COUNTY SUPERINTENDENTS OF EDUCATION.

COUNTY.	NAME.	POSTOFFICE.
Autauga	Thos. L. Saddler	Prattville.
Baldwin	J. D. Driesbach	Tensas, P. O.
Barbour	S. H. Dent	Eufaula.
Bibb	N. C. Lagrone	Centreville.
Blount	F. A. Hanna	Bangor.
Bullock	H. C. Tompkins	Union Springs.
Butler	J. M. Thigpen	Greenville.
Calhoun	J. C. McAuley	Jacksonville.
Chambers	T. W. Greer	Waverly.
Cherokee	John T. McDaniel	Centre.
Chilton	L. W. Frazier	Clanton.
Choctaw	S. S. Mellen	Mt. Sterling.
Clarke	M. S. Ezell	Grove Hill.
Clay	—— ——	——
Cleburne	N. G. Mulloy	Chulafinne,
Coffee	Alfred McGee	Elba.
Colbert	Jos. Shackleford	Tuscumbia.
Conecuh	W. J. Ledkins	Evergreen.
Coosa	John E. Hannon	Rockford.
Covington	E. Mancill	Andalusia.
Crenshaw	J. H. Parks	Rutledge.
Dale	W. H. Stuckey	Ozark.
Dallas	P. D. Barker	Selma.
DeKalb	P. B. Frazier	Portersville.
Elmore	W. P. Hannon	Wetumpka.
Escambia	I. T. B. Foard	Pollard.
Etowah	R. J. C. Haile	Gadsden.
Fayette	B. F. Peters	Fayette C. H.
Franklin	I. J. Rogers	Pleasant Site.
Geneva	J. W. Hall	Geneva.
Greene	W. G. McCracken	Eutaw.
Hale	John A. Jones	Carthage.
Henry	J. W. Foster	Abbeville.
Jackson	J. S. Collins	Scottsboro.
Jefferson	J. R. Rockett	Elyton.
Lauderdale	J. M. Weems	Florence.
Lawrence	D. C. White	Moulton.

Lee	J. F. Yarbrough	Loachapoka.
Limestone	Jas. G. Dement	Athens.
Lowndes	M. D. Robinson	Benton.
Macon	H. C. Armstrong	Notasulga.
Madison	W. P. Newman	Huntsville.
Marengo	R. B. Crawford	Demopolis.
Marion	Elisha Vickery	Pikeville.
Marshall	A. J. McDonald	Guntersville.
Mobile	E. R. Dickson	Mobile.
Monroe	T. J. Emmons	Monroeville.
Montgomery	L. A. Shaver	Montgomery.
Morgan	W. M. Wood	Hartsell Station.
Perry	J. W. Morton	Perryville.
Pickens	James Somerville	Bridgeville.
Pike	W. C. Menifee	Troy.
Randolph	J. M. K. Guinn	Wedowee.
Russell	J. M. Brannon	Seale.
Sanford	J. M. I. Guyton	Vernon.
Shelby	D. W. Caldwell	Columbiana.
St. Clair	Rob't F. Newton	Ashville.
Sumter	M. C. Kinnard	Livingston.
Talladega	W. L. Lewis	Talladega.
Tallapoosa	S. C. Oliver	Dadeville.
Tuscaloosa	R. S. Cox	Tuscaloosa.
Walker	J. C. Scott	Jasper.
Washington	G. M. Mott	Bladen Springs.
Wilcox	C. C. Sellers	Camden.
Winston	James Hilton	Houston.
City of Montgomery	H. M. Bush	Montgomery.
City of Selma	W. C. Ward	Selma.
City of Birmingham	L. H. Mathews	Birmingham.
City of Eufaula	M. B. Welborn	Eufaula.
City of Huntsville	T. J. Mayhew	Huntsville.

MEMBERS OF THE BOARD OF EDUCATION.

Hon. John M. McKleroy, Superintendent of Public Instruction, ex-officio President, Montgomery.

NAME.	DISTRICT.	POSTOFFICE.	COUNTY.
D. C. Rugg	1st.	Mobile	Mobile.
W. B. H. Howard	1st.	Camden	Wilcox.
Jno. H. Padgett	2d.	Rutledge	Crenshaw.
G. M. T. Gibson	2d.	Ozark	Dale.
O. D. Smith	3d.	Auburn	Lee.
J. P. Oliver	3d.	Dadeville	Tallapoosa.
Jno. F. Foster	4th.	Greensboro	Hale.
N. B. Mardis	4th.	Columbiana	Shelby.
L. F. Box	5th.	Ashville	St. Clair.
J. H. Francis	5th.	Jacksonville	Calhoun.
J. N. Martin	6th.	Mooresville	Limestone.
A. H. McClung	6th.	Jasper	Walker.

CONGRESSIONAL DISTRICTS.

The First District

Embraces a population of 120,927.

	D. M.	R. M.
Clarke	95	......
Choctaw	435	......
Mobile	1727	......
Monroe	334	......
Washington	514	......
Marengo	....	1623

Democratic majority in the first district 1,582.

The Second District

Embraces a population of 111,751.

	D. M.	R. M.
Baldwin	......	......
Butler	721	......
Conecuh	86	......
Crenshaw	1228	......
Covington	1089	......
Montgomery	......	2919
Pike	1657	......

Democratic majority in the second district 42,819.

The Third District

Embraces a population of 132,116.

	D. M.	R. M.
Barbour	100	......
Bullock	......	917
Dale	1138	......
Geneva	467	......
Coffee	1044	......
Henry	1285	......
Russell	....	661
Lee	2699	......

Democratic majority in the third district, 5,146.

The Fourth District

Embraces a population of 115,518.

	D. M.	R. M.
Dallas	......	4966
Hale	......	2304
Lowndes	......	3053
Wilcox	......	2126
Perry	......	2414

Republican majority in the fourth district, 14,863.

The Fifth District.

Embraces a population of 113,518.

	D. M.	R. M.
Autauga	......	970
Bibb	640	......
Chambers	646	......
Chilton	651	......
Coosa	373	......
Clay	907	......
Elmore	609	......
Macon	......	848
Talapoosa	2016	......

Democratic majority in the fifth district, 4024.

The Sixth District

Embraces a population of 125,410.

	D. M.	R. M.
Fayette	574	
Greene	......	2275
Jefferson	1359	......
Marion	739	......
Pickens	661	......
Sanford	779	......
Sumter	.....	1715
Tuscaloosa	662	......
Walker	305	......
Limestone	......	135

Democratic Majority in the sixth district, 953.

The Seventh District

Embraces a population of 121,828.

	D. M.	R. M.
Blount	1439	......
Calhoun	1814	......
Cherokee	1776	......
Cleburne	539	......
DeKalb	347	......
Etowah	1089	......
Marshall	1105	......
St. Clair	452	......
Shelby	711	......
Talladega	......	320

Democratic majority in the seventh district, 9,592.

The Eighth District

Embraces a population of 130,353.

	D. M.	R. M.
Colbert	538	......
Franklin	535	......
Jackson	2036	......
Lauderdale	767	......
Lawrence	184	......
Limestone	304	......
Madison	79	......
Morgan	533	......

Democratic majority in the eighth district, 4,865.

	COUNTIES.	Improved land.	Value of farms.	Total (estimated) value of all farm productions, including betterments and additions to stock.
		Acres.	*Dollars.*	*Dollars.*
16	Coffee	30,546	308,110	511,588
17	Colbert	57,190	910,627	677,646
18	Conecuh	20,583	240,795	275,675
19	Coosa	64,905	610,653	1,040,736
20	Covington	14,048	123,443	315,418
21	Crenshaw	74,115	684,870	970,227
22	Dale	76,083	437,060	832,351
23	Dallas	168,156	3,112,373	2,753,591
24	DeKalb	44,188	534,924	404,203
25	Elmore	73,524	924,020	1,514,157
26	Escambia	7,783	36,999	146,195
27	Etowah	37,277	750,420	543,142
28	Fayette	40,897	325,385	498,094
29	Franklin	41,036	488,593	539,049
30	Geneva	12,758	125,304	261,548
31	Greene	127,856	1,560,652	1,154,762
32	Hale	165,266	2,639,207	2,029,383
33	Henry	106,863	895,419	1,061,838
34	Jackson	77,086	1,510,268	1,062,130
35	Jefferson	56,964	1,140,247	607,967
36	Lauderdale	93,625	1,405,630	849,029
37	Lawrence	144,224	1,513,284	1,359,431
38	Lee	120,765	1,405,738	1,412,750
39	Limestone	115,730	1,816,510	1,231,157
40	Lowndes	126,185	2,271,911	2,176,738
41	Macon	125,944	1,486,811	1,281,587
42	Madison	139,305	2,194,834	1,955,501
43	Marengo	141,368	2,819,711	3,034,675
44	Marion	18,315	80,438	149,365
45	Marshall	48,353	692,799	611,809
46	Mobile	13,824	548,730	393,777
47	Monroe	53,175	768,867	921,752
48	Montgomery	222,200	3,793,895	3,403,382
49	Morgan	80,749	1,183,488	837,236
50	Perry	97,977	1,455,175	1,476,555
51	Pickens	76,816	799,785	1,078,978
52	Pike	97,885	1,314,779	1,284,584
53	Randolph	62,023	620,331	718,695
54	Russell	114,781	1,721,442	2,236,179
55	Sanford	42,465	304,250	643,059
56	Shelby	48,376	516,136	692,911
57	St. Clair	34,055	401,174	391,114
58	Sumter	141,784	1,684,953	1,513,982
59	Talladega	81,579	940,662	1,084,387
60	Tallapoosa	88,902	488,967	1,055,798
61	Tuscaloosa	77,007	1,105,677	1,336,815
62	Walker	23,454	296,480	292,415
63	Washington	14,778	155,620	160,312
64	Wilcox	165,907	2,347,868	2,550,667
65	Winston	17,847	149,410	298,475

MANUFACTURES.

COUNTIES.	Establishm'ts.	Capital.	Wages.	Materials.	Products.
		Dollars.	*Dollars.*	*Dollars.*	*Dollars.*
Autauga	32	287,600	127,203	382,881	667,633
Baker	16	20,400	1,485	60,323	73,181
Baldwin	15	115,150	130,360	98,305	321,100
Barbour	46	163,175	63,740	610,856	780,103
Bibb	19	53,760	13,652	64,076	113,252
Blount	32	31,890	3,346	60,371	84,504
Bullock	19	69,600	14,770	112,607	143,829
Butler	99	81,080	38,850	111,165	262,205
Calhoun	60	165,720	36,795	194,488	321,226
Chambers	14	18,075	4,780	90,887	109,538
Cherokee	65	160,407	31,139	179,255	290,233
Choctaw	25	18,850	3,125	37,596	56,295
Clarke	19	10,205	3,550	21,525	32,795
Clay	31	28,703	3,551	80,398	98,216
Cleburne	14	22,100	5,176	29,865	41,400
Colbert	36	78,790	26,400	67,884	121,644
Conecuh	16	21,900	3,528	31,938	46,677
Coosa	9	51,700	8,798	83,662	108,950
Crenshaw	10	9,100	2,625	11,750	23,100
Dale	53	40,100	12,875	123,570	177,670
Dallas	41	115,650	54,687	134,060	247,493
DeKalb	8	10,205	640	8,550	13,256
Elmore	54	511,125	94,975	308,114	464,827
Etowah	25	54,850	22,855	152,234	267,217
Fayette	14	13,600	1,500	10,308	16,316
Franklin	41	24,911	5,898	51,241	70,487
Greene	10	15,800	4,550	27,520	40,830
Hale	43	67,691	20,780	113,620	201,082
Henry	23	11,700	7,425	32,838	51,410
Jackson	60	52,125	18,133	107,050	176,734
Jefferson	22	45,800	5,460	150,215	179,289
Lauderdale	45	45,050	12,900	80,404	135,987
Lawrence	33	22,955	9,240	75,791	129,340
Lee	39	86,375	16,140	187,757	236,940
Limestone	21	39,600	9,514	51,030	109,278
Lowndes	32	46,150	11,020	113,230	163,183
Macon	32	62,550	27,450	97,573	158,294
Madison	93	167,440	103,839	254,334	501,096
Marengo	92	72,810	43,975	125,932	259,239
Marion	1	11,000	4,800	41,000	48,000
Marshall	29	26,079	4,120	51,770	70,654
Mobile	272	1,099,435	645,205	1,300,574	2,760,390
Monroe	4	6,300	1,350	13,400	21,450
Montgomery	59	386,425	230,350	347,809	692,450
Morgan	1	500	50	400	875

COUNTIES.	Establishm'ts.	Capital.	Wages.	Materials.	Products.
		Dollars.	*Dollars.*	*Dollars.*	*Dollars.*
Perry	5	13,800	4,650	84,000	107,000
Pickens	32	46,900	17,090	71,595	119,573
Pike	14	10,600	13,500	12,425	38,132
Randolph	33	98,050	20,150	152,161	199,154
Russell	36	56,400	30,735	94,847	191,307
Sanford	37	21,930	1,904	37,655	51,389
Shelby	40	372,285	125,206	109,415	336,994
St. Clair	9	18,916	1,670	47,950	60,016
Talladega	26	75,120	14,515	50,490	85,605
Tallapoosa	69	51,375	15,700	96,099	137,663
Tuscaloosa	87	419,930	66,378	310,872	496,760
Walker	3	3,300	800	5,825	8,300
Washington	9	9,500	3,170	13,850	21,750
Wilcox	65	71,495	19,756	215,497	297,333

Mechanical and Manufacturing Industries.	Establis'ts.	All Hands.	Capital. (*Dollars.*)	Wages. (*Dollars.*)	Materials. (*Dollars.*)	Products, (*Dollars.*)
Carriages and wagons	93	311	137,900	104,153	91,674	310,034
Cotton goods	13	1,032	931,000	216,679	764,975	1,088,767
Flouring-mill products	102	269	399,096	58,795	1213,938	1,670,332
Iron castings	18	140	177,100	98,622	152,271	326,890
Lumber	125	1,068	647,400	326,511	508,405	1,263,222
Machinery, not eng's & boilers.	11	135	333,870	80,250	138,456	342,365
Printing and publishing	15	187	123,300	150,330	107,158	309,425
Tar and turpentine	12	602	86,200	120,000	84,155	280,203

POSTOFFICE ADDRESS OF OFFICERS OF THE STATE GRANGE.

Master—W. H. Chambers, Oswichee, Alabama.
Secretary—E. M. Law, Tuskegee, Alabama.
Treasurer—John T. Harris, Opelika, Alabama.
Chairman of the Executive Committee—S. S. Scott, Uchee, Russell county, Alabama.

STATE DEBT.

Date of Issue.	When due.	Where Payable.	Amount.	Rate of Interest.
1866	1886	New York.....$	1,941,000 00	5 per cent.
1866	1886	New York.....	473,800 00	5 " "
1866	1886	London........	64,800 00	5 " "
1866	1886	London.........	82,500 00	6 " "
1866	1886	New York.....	877,700 00	8 " "
1867	1886	London.........	648,000 00	5 " "
1868	1888	New York.....	500,000 00	8 " "
1870	1890	London.........	688,000 00	6 " "
1872	1892	New York.....	168,000 00	5 " "
1872	1892	New York.....	650,000 00	8 " "
1873	1893	New York.....	185,000 00	8 " "
1874	1894	New York.....	341,000 00	7 " "

Total Bonded Debt......................	$6,619,800 00	
Total Bonded Debt as above stated..............................		$6,619,800 00
University Fund...	$ 300,000 00	
Sixteenth Section Fund..................................	1,740,200 29	
Valueless Sixteenth Section Fund................	97,091 21	
Surplus Revenue Fund..................................	669,086 80	
Total Educational Fund indebtedness......................		$2,806,378 30
Outstanding State Certificates per Treasurer's report..........		81,535 00
Outstanding Obligations...		944,880 00
Aggregate direct indebtedness.........		$10,452,593 30

(Annual interest on Trust Funds, $224,510 25.)

Contingent Liability for Endorsement of Railroad bonds... $15,051,000 00

REVENUE AND EXPENSES.

Estimated receipts and disbursements for the fiscal year ending September 30th, 1875.

RECEIPTS.

From general taxes on property (net revenue)......................	$1,000,000 00
tax on licenses...	75,000 00
tax on railroads...	70,000 00
all other sources..	25,000 00
	$1,170,000 00

N. B.—The amended law of 1875, will bring in a much larger revenue.

DISBURSEMENTS.

For salaries of State officers	$ 22,000 00
" officers Supreme Court	6,000 00
" secretaries and clerks	15,000 00
" Judges Supreme Court	12,000 00
" Judges Circuit Court	36,000 00
" Chancellors	15,000 00
For pay of members, &c., General Assembly	50,000 00
For pay of Board of Education and Regents	4,000 00
For pay of watchmen, messengers and servants	4,000 00
For contingent expenses	20,000 00
For stationary	6,000 00
For fuel and lights	3,000 00
For feeding State prisoners	80,000 00
For conveying convicts to the penitentiary	9,000 00
For public printing	15,000 00
For special appropriations	25,000 00
For Alabama Insane Hospital	60,000 00
For Institution for Deaf, Dumb and Blind	18,000 00
For interest on Educational and Trust Funds	225,000 00
For one-fifth annual revenue for schools	200,000 00
For interest on bonded debt (one year)	450,000 00
For expense of payment of interest, sterling exchange, &c.	20,000 00
For miscellaneous items	30,000 00
	$1,325,000 00

RELIGION.

Religious—Organizations	2,095
Edifices	1,958
Settings	510,810
Property	$2,414,515
Baptist—Organizations	789
Edifices	772
Settings	190,200
Property	$536,650
Christian—Organizations	19
Edifices	19
Settings	5,750
Property	$10,050
Congregational—Organizations	4
Edifices	2
Settings	650
Property	$7,300
Episcopal (Protestant)—Organizations	50
Edifices	38
Settings	15,520
Property	$264,600
Methodist—Organizations	991
Edifices	892
Settings	218,945
Property	$787,265
Presbyterian—Organizations	202
Edifices	200
Settings	67,615
Property	$359,700
Roman Catholic—Organizations	20
Edifices	19
Settings	6,730
Property	$409,000
Universalist—Organizations	6
Edifices	2
Settings	550
Property	$1,400

EDUCATION—Federal Census.

School ages—Males	173,273
Females	169,703
White males	91,989
White females	89,798
Colored males	81,274
Colored females	79,882
School attendance—Total	77,139
White males	31,098
White females	30,226
Colored males	7,507
Colored females	8,313
Number of school teachers	2,900
Male	2,000
Female	900
Total income	$976,351
From endowment	$39,500
From taxation	$471,161
From other sources	$465,690

Schools.		Teachers.		Pupils.		
Classes and kinds.	*No.*	*Males.*	*Females.*	*Males.*	*Females.*	*Income. Dollars.*
All classes	2969	2372	992	37223	38643	976,351
Public	2812	2173	835	33390	33873	629,626
Normal	14	13	12	260	238	629,626
High	4	4	2	90	80	
Grammar	10	6	4	100	100	
Common	2784	2150	817	32940	33465	
Classical	57	122	85	1799	2419	275,355
Classical.						
Colleges	8	42	21	496	530	108,800
Academies	46	68	64	1231	1855	142,750
Professional.						
Medicine	1	7	.....	30	....	10,000
Theology	1	2	.....	21	....	1,800
Technical.						
Blind, deaf and dumb	1	3	.....	21	34	12,005
Other	100	77	72	2034	2351	71,370
Day and boarding	83	59	38	1499	1630	70,870
Parochial	17	18	34	535	721	500

Newspapers	89
Copies annually issued	9,198,980
Circulation	91,165

SOCIAL STATISTICS.

Paupers supported by Government	890
Cost of annual support	$ 81,459
Number of persons convicted during year	1,269
Persons in prison June 1, 1870	593
White	149
Colored	436
Area square miles	50,722
Persons to square mile	1,966
Families	202,704
Persons to family	4.92
Dwellings	198,327
Persons to dwelling	5.03

Mobile—Relative size among United States cities	39
Families	6,301
Persons to family	5.08
Dwellings	5,738
Persons to dwelling	5.58
Population	32,034
Whites	18,115
Colored	13,919

Population of State by sex—Male	488,738
Female	508,254
White males	255,023
White females	266,361
Colored males	233,677
Colored females	241,833
Population of military age, 18-45	168,986
White	88,175
Colored	80,794

OCCUPATIONS.

Population over 10 years	706,802
Males	340,984
Females	365,818
Engaged in all classes of business	365,258
Male	275,640
Female	89,618
Engaged in agriculture	291,628
In professional and personal service	42,125
In trade	14,435
In manufactures	17,070

Mobile—All classes of occupation	12,186
Engaged from 10 to 15	367
Engaged from 16 to 50	11,295
Engaged from 60 and over	524
Engaged in agriculture	138
Engaged in personal and professional service	7,024
Engaged in trade	2,979
Engaged in manufactures	2,045

Number of the Blind	611
Males	344
Females	267
Deaf and Dumb	401
Males	205
Females	196
Insane	555
Males	275
Females	280
Idiots	721
Males	418
Females	303

POPULATION—(Federal Census.)

	COUNTIES.	*Total.*		*Colored.*		*White.*	
		1870.	1860.	1870.	1860.	1870.	1860.
	The State	996992	964201	475510	437770	521384	526271
1	Autauga	11623	16739	7292	9621	4329	7105
2	Baker	6194	....	1137	....	5057	....
3	Baldwin	6004	7530	2845	3854	3159	3585
4	Barbour	29309	30812	17165	16183	12143	14629
5	Benton	....	....	....	....	....	....
6	Bibb	7469	11894	2408	3867	5061	8027
7	Blount	9945	10865	682	672	9263	10193
8	Bullock	24474	....	17251	....	7223	....
9	Butler	14981	18122	6391	6862	8590	11260
10	Calhoun	13980	21539	3892	4370	10088	17169
11	Cataco	....	....	....	....	....	....
12	Chambers	17562	23214	8588	11999	8974	11315
13	Cherokee	11132	18360	1480	3039	9652	15321
14	Choctaw	12676	13877	6872	7110	5802	6767
15	Clarke	14663	15049	7565	7450	7098	7599
16	Clay	9560	....	737	....	8823	....
17	Cleburne	8017	....	576	....	7441	....
18	Coffee	6171	9623	1020	1423	5151	8200
19	Colbert	12537	....	4639	....	7898	....
20	Conecuh	9574	11311	4901	4892	4667	6419
21	Coosa	11945	19273	3394	5223	8544	14044
22	Covington	4868	6469	599	838	4269	5631
23	Crenshaw	11156	....	2206	....	8950	....
24	Dale	11325	12197	1797	1816	9528	10379
25	Dallas	40705	33625	32152	25840	8552	7785
26	DeKalb	7126	10705	470	852	6656	9853
27	Elmore	14477	....	6730	....	7747	....
28	Escambia	4041	....	951	....	3047	....
29	Etowah	10109	....	1708	....	8401	....
30	Fayette	7136	12850	1077	1705	6059	11145
31	Franklin	8006	18627	1313	8508	6693	10119
32	Geneva	2959	....	227	....	2732	....
33	Greene	18399	30859	14541	23608	3858	7251
34	Hale	21792	....	16990	....	4802	....
35	Hancock	....	....	....	....	....	....
36	Henry	14191	14918	4657	4454	9534	10464
37	Jackson	19410	18283	3060	3472	16350	14811
38	Jefferson	12345	11746	2506	2668	9839	9078
39	Lauderdale	15091	17420	5170	6781	9921	10639
40	Lawrence	16658	13975	6562	6802	10096	7173
41	Lee	21750	....	11597	....	10151	....
42	Limestone	15017	15306	7253	8091	7764	7215
43	Lowndes	25719	27716	20633	19354	5086	8362
44	Macon	17727	26802	12620	18177	5103	8624
45	Madison	31267	26451	15740	14765	15527	11685

	COUNTIES.	1870.	1860.	1870.	1860.	1870.	1860.
46	Marengo	26151	31171	20058	24410	6090	6761
47	Marion	6059	11182	224	1288	5835	9893
48	Marshall	9871	11472	1367	1872	8504	9596
49	Mobile	49311	41131	21107	12571	28195	28559
50	Monroe	14214	15667	7572	8751	6625	6878
51	Montgomery	43704	35904	31285	23780	12419	12122
52	Morgan	12187	11335	3358	3743	8829	7592
53	Perry	24975	27724	17833	18245	7142	9479
54	Pickens	17690	22316	9638	12199	8052	10117
55	Pike	17423	24435	4625	8789	12798	15646
56	Randolph	12006	20059	1641	1927	10365	18132
57	Russell	21636	26592	15690	15656	5946	10936
58	Sanford	8893	....	1563	....	7330	....
59	Shelby	12218	12618	3378	3648	8840	8970
60	St. Clair	9360	11013	2065	1777	7295	9236
61	Sumter	24109	24035	18907	18116	5202	5919
62	Talladega	18064	23520	9595	8886	8469	14634
63	Tallapoosa	16963	23827	4190	6673	12772	17154
64	Tuscaloosa	20081	23200	8294	10229	11787	12971
65	Walker	6543	7980	308	519	6235	7461
66	Washington	3912	4669	1787	2550	2125	2119
67	Wilcox	28377	24618	21610	17823	6767	6795
68	Winston	4155	3576	21	122	4134	3454

CIRCUIT COURT JUDGES.

Circuit.	*Judge.*	*Residence.*
I.	*G. H. Craig*	Dallas.
II.	*James Q. Smith*	Montgomery.
III.	Wm. S. Mudd	Jefferson.
IV.	Wm. B. Wood	Lauderdale.
V.	Lewis Wyeth	Marshall.
VI.	Harry Toulmin	Mobile.
VII.	*Luther R. Smith*	Sumter.
VIII.	Henry D. Clayton	Barbour.
IX.	James E. Cobb	Macon.
X.	John Henderson	Talladega.
XI.	John K. Henry	Butler.
XII.	W. L. Whitlock	Etowah.

CHANCELLORS.

Northern Division—H. C. Speake. Eastern Division—N. S. Graham.
Middle Division—Charles Turner. Southern Division—Huriosco Austill.
Western Division—A. W. Dillard.

ELECTION RETURNS.

COUNTIES. (65).	*Governor, 1874.*		*Governor, 1872.*		*Governor, 1870.*	
	Houston, Dem.	*Lewis, Rep.*	*Herndon, Dem.*	*Lewis, Rep.*	*Lindsay, Dem.*	*Smith, Rep.*
Autauga.........	778	1648	674	1600	809	1518
Baker	894	243	472	221	No returns.	
Baldwln.........	769	818	570	690	556	532
Barbour.........	2771	2671	3340	2702	2165	3518
Bibb...............	1089	449	810	418	845	287
Blount...........	1693	254	575	271	655	117
Bullock	1584	2503	1265	3101	1534	2955
Butler.............	2191	1469	1512	1100	1837	693
Calhoun..	2291	477	1819	397	1841	339
Chambers......	2186	1540	1812	1317	1590	1297
Cherokee.......	1909	133	1260	221	1008	83
Choctaw........	1421	986	1177	644	1078	1041
Clarke	1399	1304	1463	1093	1207	535
Clay...............	1219	312	947	398	857	249
Cleburne........	948	409	544	412	531	327
Coffee............	1128	84	760	103	627	173
Colbert..........	1558	1020	1049	815	1189	182
Conecuh	1086	1000	928	953	768	761
Coosa.............	1322	949	1034	894	1081	645
Covington......	1067	61	627	70	587	6
Crenshaw......	1610	382	1066	309	1173	130
Dale...............	1501	363	1012	371	1112	469
Dallas	1853	6819	1984	7065	2096	7378
DeKalb..........	940	599	576	586	574	512
Elmore..........	1557	1481	1351	1451	1379	1339
Escambia	925	316	602	216	467	176
Etowah..........	1404	315	745	295	781	268
Fayette..........	900	326	529	334	574	202
Franklin.....	884	349	488	413	329	273
Greene..........	864	3139	1231	2508	1825	1790
Geneva..........	479	12	262	49	163	121
Hale.............	1185	3489	816	3658	1199	3200
Henry............	2021	736	1912	396	1626	449
Jackson.........	2815	779	1682	681	1579	464
Jefferson........	2228	860	1215	1024	2034	1131
Lauderdale....	1927	1160	1358	921	1274	507
Limestone.....	1715	1511	849	892	1090	802
Lawrence.......	1802	1681	1224	1499	1330	1082
Lee................	3812	1120	2251	2376	1938	1702
Lowndes........	1197	4150	932	3959	1195	3554
Macon............	1223	2076	968	2068	1234	1711
Madison........	3422	3348	2471	3022	2966	2097
Marengo...... ..	1808	3432	1717	1608	1439	3248
Marion..........	888	150	272	275	321	104
Marshall.........	1364	259	623	293	645	105

COUNTIES.	*Governor, 1874.*		*Governor, 1872.*		*Governor, 1870.*	
	Houston, Dem.	*Lewis. Rep.*	*Herndon, Dem.*	*Lewis. Rep.*	*Lindsay, Dem.*	*Smith. Rep.*
Mobile..........	6491	4764	6576	5938	4617	4660
Monroe.........	1320	986	1448	482	1362	579
Montgomery..	3291	6210	3025	7096	2568	7354
Morgan..........	1635	1113	1013	1015	1020	463
Perrry	1428	3834	1400	4141	1356	3903
Pickens.........	1938	1177	1510	441	1708	230
Pike...............	2377	727	1905	553	1822	499
Randolph......	1300	1000	915	968	658	678
Russell..........	1964	2625	1717	2513	1154	1428
Sanford	1037	258	631	261	606	98
Shelby..........	1609	966	1112	893	1124	611
St. Clair.........	1073	621	814	449	788	497
Sumter..........	1690	3305	1733	7449	2055	1438
Talladega	1877	2137	1566	1935	1617	1761
Tallapoosa.....	2964	918	2142	716	2286	320
Tuscaloosa......	2239	1577	1715	1350	1862	773
Walker..........	871	506	441	446	630	230
Washington..	579	65	495	79	581	6
Wilcox..........	1508	3634	1299	3956	1406	3678
Winston	293	386	117	416	119	298
Total..........	107118	93928	81371	89868	79447	77676
Majority....	13190	....	....	8497	1771	....
Whole vote................	201046		171239		157123	

UNITED STATES SENATORS.

George E. Spencer, Postoffice, Decatur.
George Goldthwaite, Postoffice, Montgomery.

UNITED STATES OFFICERS.

Judge of the U. S. Circuit Court—Wm. B. Woods.
Judge of the U. S. District Court—John Bruce.
Clerk—N. W. Trimble.
Marshal—R. W. Healy.
Deputy Marshal—George Cottin.
District Attorney—G. M. Duskin.
Collector of Internal Revenue—Lou. H. Mayer.
Collector of the Port—J. C. Goodloe.
Postmaster—M. D. Wickersham.
Register U. S. Land Office—C. T. Stearns.
Receiver Public Moneys, Mobile—James A. Somerville.
U. S. Gaugers—G. E. Yarrington and Spencer Terrell.

VOTE FOR REPRESENTATIVES IN CONGRESS—1874.

Dist.	*Democrats.*	*Vote.*	*Republicans.*	*Vote.*	*Maj.*
At Large.					
	Forney	106,080	White	90,398	15,898 D
	Lewis	106,023	Sheets	89,909	
1.	Bromberg	16,953	Haralson	19,551	2,598 R
2.	Williams	28,180	Rapier	19,124	1,056 D
3.	Bradford	19,424	Betts	14,076	5,348 D
4.	Jones	18,378	Hayes	23,900	5,522 R
5.	Caldwell	13,011	Sheffield, Ind. Dem.	8,969	4,042 D
6.	Hewitt	15,048	Sloss, Ind. Dem.	9,172	5,876 D

PAST VOTE OF THE STATE.

		Douglas.	*Breck.*	*Bell.*	*Maj.*
1860.	President	13,651	48,831	27,875	34,607 D
		Against.	*For.*		
1867.	Convention	5,628	90,238	—	84,610 F
1868.	Constitution	409	80,318	—	79,909 F
		Dem.	*Rep.*		
1868.	President	72,086	76,366	—	4,280 R
1869.	Congress	48,380	66,142	—	17,762 R
1870.	Governor	79,447	77,676	—	1,771 D
1872.	President	79,444	90,272	—	10,828 R
1874.	Governor	107,118	93,928	—	13,190 D

VALUATION, BY COUNTIES—1870.

COUNTIES.	VALUATION.	
	Assessed valuation of real and personal estate.	True valuation of real and personal estate.
	Dollars.	*Dollars.*
The State	155,582,595	201,855,841
Autauga	1,867,040	2,379,744
Baker	388,144	512,291
Baldwin	1,015,457	1,220,827
Barbour	4,574,427	5,953,446
Bibb	878,867	1,130,089
Blount	757,893	961,690
Bullock	4,090,919	5,389,830
Butler	1,794,867	2,471,910
Calhoun	1,702,258	2,679,655
Chambers	1,687,876	2,218,770
Cherokee	1,368,353	1,809,405
Choctaw	1,104,975	1,452,755
Clarke	1,224,414	1,620,064
Clay	603,592	801,268
Cleburne	444,381	568,634
Coffee	352,217	467,036
Colbert	1,834,723	2,178,058
Conecuh	960,383	1,252,635
Coosa	943,875	1,246,203
Covington	190,222	252,788
Crenshaw	791,719	1,046,027

	VALUATION.	
	Assessed valuation of real and personal estate.	True valuation of real and personal estate.
COUNTIES.	*Dollars.*	*Dollars.*
Dale	907,980	1,198,152
Dallas	9,779,577	12,722,277
DeKalb	654,629	872,358
Elmore	2,307,687	2,931,364
Escambia	268,622	345,616
Etowah	991,797	1,268,222
Fayette	629,417	775,693
Franklin	793,939	302,081
Geneva	202,933	268,633
Greene	3,614,226	4,708,610
Hale	4,388,825	5,717,318
Henry	1,404,241	1,852,582
Jackson	1,935,239	2,137,200
Jefferson	1,350,630	1,557,197
Lauderdale	3.179,565	3,442,526
Lawrence	1,827,672	3,000,000
Lee	2,229,037	2,922,373
Limestone	2,693,056	3,351,651
Lowndes	3,287,616	4,283,954
Macon	2,699.659	3,530,490
Madison	7,970,675	8,000,000
Marengo	3,399,176	4,481,457
Marion	291,293	683,191
Marshall	1,028,782	1,325,737
Mobile	23,743,719	30,510,869
Monroe	1,444,753	1,874,108
Montgomery	12,934,881	16,614,637
Morgan	1,500,304	1,910,641
Perry	4,721,530	6,156,480
Pickens	1,482,010	1,953,971
Pike	1,699,337	2,245,440
Randolph	882,332	1,170,408
Russell	2,635,477	3,483,797
Sanford	800,000	1,000,000
Shelby	1,202,069	1,580,501
St. Clair	645,906	841,937
Sumter	3,164,590	4,156,041
Talladega	3,541,690	4,632,823
Tallapoosa	1,992,911	2,624,321
Tuscaloosa	2,690,789	3,501,072
Walker	549,470	725,128
Washington	311,129	406,189
Wilcox	3,036,656	3,975,671
Winston	190,167	300,000

AGRICULTURE.

		Wheat.					
	COUNTIES.	Spring.	Winter.	Ind. Corn.	Oats.	Cotton.	Wool.
		Bushels.	*Bushels.*	*Bushels.*	*Bushels.*	*Bales.*	*Pounds.*
1	Autauga.......	237	672	191158	5568	7965	2060
2	Baker...........	446	11282	131311	6238	1360	7634
3	Baldwin.......	....	....	31025	....	87	9864
4	Barbour........	....	....	364304	3648	17011	1266
5	Bibb	2669	4157	82620	13645	3973	3934
6	Blount	20319	26956	266553	12779	950	14088
7	Bullock	267	97	389791	13632	17972	656
8	Butler...........	....	....	251512	4126	5854	2737
9	Calhoun.......	3014	76804	238451	29030	3038	4840
10	Chambers.. ...	1237	38295	205099	35921	7868	1395
11	Cherokee......	754	67776	231946	27683	1807	10179
12	Choctaw.......	....	....	227715	1495	6439	3356
13	Clarke..........	....	....	227031	490	5713	789
14	Clay.............	....	38422	196886	17005	1143	6948
15	Cleburne.......	12098	24641	186763	19853	833	6496
16	Coffee..	86	64	121352	4253	2004	6737
17	Colbert.........	534	12148	291402	14347	3936	4026
18	Conecuh	....	15	92177	815	1539	3731
19	Coosa...........	677	35389	262683	20513	3893	6980
20	Covington....	....	....	63389	465	689	7078
21	Crenshaw.. ...	50	10	263615	2565	4638	2847
22	Dale......	....	60	225364	14444	4273	5045
23	Dallas	1038	257	436701	18101	24819	1926
24	De Kalb.	1	36879	209994	12088	205	11909
25	Elmore.........	....	10330	198371	18078	7295	2547
26	Escambia.	....	....	30390	240	605	9965
27	Etowah	41128	....	181034	9300	1383	13791
28	Fayette.........	5956	8310	201228	13283	1909	13194
29	Franklin......	8890	180	264136	7055	2072	6142
30	Geneva.........	....	....	53642	4990	420	9001
31	Greene.........	....	1265	207782	2038	9910	2498
32	Hale	....	360	384420	5240	18573	9759
33	Henry..........	52	....	248470	5670	7127	3411
34	Jackson........	8570	42355	506777	26952	2339	16809
35	Jefferson	30300	14919	251184	9336	1470	8135
36	Lauderdale...	13709	10417	447155	12526	5457	11643
37	Lawrence.....	3162	17071	519673	14217	9243	8297
38	Lee	52	35816	244955	44005	11591	1779
39	Limestone ...	159	23851	404435	10102	7319	4880
40	Lowndes......	1150	637	453187	10901	18369	385
41	Macon	2379	50	168661	31690	11872	1854
42	Madison........	13867	23011	674625	13223	12180	5730
43	Marengo.......	16	4	598938	11538	23614	2135
44	Marion.........	4782	326	90429	2644	463	9691
45	Marshall	3240	13988	187491	9445	2340	8693

	COUNTIES.	Wheat. Spring.	Wheat. Winter.	Ind. Corn.	Oats.	Cotton.	Wool.
		Bushels.	*Bushels.*	*Bushels.*	*Bushels.*	*Bales.*	*Pounds.*
46	Mobile.........	....	....	61350	185	317	7532
47	Monroe........	....	10	232486	3011	6172	4568
48	Montgomery.	2012	28	602549	3045	25517	201
49	Morgan........	....	23336	333332	17701	4389	6747
50	Perry...........	....	419	841985	1935	13449	695
51	Pickens........	955	4259	254251	11686	8263	3799
52	Pike.............	....	....	309965	4416	7192	3123
53	Randolph.....	56	48531	264448	20707	2246	13262
54	Russell.........	68	792	572221	26770	20796	662
55	Sanford	2746	15926	219437	14128	1825	9924
56	Shelby	10954	19321	221618	26189	2194	6283
57	St. Clair.......	427	29351	157268	7895	1244	4451
58	Sumter.........	....	472	334110	1822	11646	2513
59	Talladega	....	69321	284783	42821	5697	5784
60	Tallapoosa ...	1	48468	267764	33353	5446	10439
61	Tuscaloosa ...	....	7551	343569	7718	6458	8194
62	Walker.........	2927	6204	158810	2420	928	3243
63	Washington.	....	....	57034	....	1803	5103
64	Wilcox.........	1	1	660978	1725	20095	2611
65	Winston	100	3178	94165	2162	205	5259

VALUE OF IMPROVED LAND.

	COUNTIES.	Improved land.	Value of farms.	Total (estimated) value of all farm productions, including betterments and additions to stock.
		Acres.	*Dollars.*	*Dollars.*
1	Autauga	92,012	1,122,059	995,114
2	Baker.................	31,852	284,378	349,587
3	Baldwin............	4,919	140,550	81,210
4	Barbour............	185,727	2,374,493	3,186,725
5	Bibb..................	24,575	295,110	273,777
6	Blount..............	56,349	649,291	572,045
7	Bullock.............	115,310	2,468,172	2,008,451
8	Butler.........	75,685	927,827	983,066
9	Calhoun	68,234	1,324,105	713,006
10	Chambers..........	198,945	1,286,665	1,258,874
11	Cherokee	61,408	1,267,036	665,213
12	Choctaw.....	79,502	946,850	908,562
13	Clarke...............	61,549	156,165	840,160
14	Clay..................	37,348	453,791	593,139
15	Cleburne...........	42,267	497,820	460,591

TABLE OF CONTENTS.

PAGE.

General Description of the State........ 3

Climate and Health........ 9

The Timber Region........ 13

The Cotton Region........ 19

The Manufacturing Region........ 24

The Mineral Region........ 30

The Stock and Agricultural Region........ 37

The Railroad System........ 42

The Water Courses........ 44

Proposed Improvement of Rivers........ 48

Importance of the Water Lines........ 53

The Mobile and Alabama Grand Trunk Railroad........ 60

Growth of the State since the war........ 66

Advantages of Mobile Harbor........ 76

Home for the Immigrant........ 82

Appendix, Page 89. *State Government—General Assembly—County Officers—County Superintendents of Education—Members of the Board of Education—Congressional Districts—Election Returns—Taxation—Value of Lands—Agriculture—Manufactures—State Debt and Revenue—Religion—Schools—Social Statistics, &c., &c.*

MOBILE BOARD OF TRADE—OFFICERS AND COMMITTEES.

OFFICERS FOR THE YEAR ENDING DECEMBER 1, 1875.

Leslie E. Brooks	President.
Daniel Wheeler	First Vice-President.
Maurice McCarthy	Second Vice-President.
E. D. Sandford	Secretary.
Louis Touart	Treasurer.

BOARD OF CONTROL.

L. Brewer,
Thomas Henry,
J. Willard Davis,
William S. Foster,
T. A. Hamilton,
G. B. Preston,
Joseph Hodgson,
L. F. Irwin,
F. E. Stollenwerck,
John Maguire,
Louis Touart,
C. J. Michaeloffsky.

STANDING COMMITTEES.

Reading Room and Finance.

Maurice McCarthy,
T. S. Fry,
George Vidmer.

Harbor Improvement.

Price Williams,
William D. Dunn,
T. A. Hamilton.

Cotton Trade and Port Charges.

F. E. Stollenwerck,
John B. Dobson,
S. C. Muldon,
Marshall Rooker,
George Byram.
Frank Childs,
N. W. Perry,
D. T. Webster,
M. R. Parker.

Commerce.

John Reid,
R. F. Sparks,
E. S. Perryman,
L. Scranton,
A. J. Ingersoll,
Charles F. Hopkins,
Benjamin Toomer,
F. P. Andrews,
Douglas Vass.

Immigration.

A. Murdock,
Price Williams, Jr.,
H. F. Wilson,
Thomas Henry,
Martin Horst.

Transportation and Navigation.

F. Ingate,
John Bowen,
John Wylie,
I. I. Jones,
A. M. Wilmarth.
F. Blelark,
Thomas R. Foster,

Manufacturing and Iron and Coal Trade.

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L. F. Irwin,
A. C. Danner,
W. L. Baker,
C. B. Gwin.

Banks and Bankers.

J. W. Whiting,
George G. Duffee,
W. A. Garnett.

Exchange Building.

Daniel Wheeler,
Ira W. Porter,
John R. Lassabe.

Interest and Improvement of the City.

T. A. Hamilton,
M. Forchheimer,
Thos. St. John,
R. H. Smith,
H. L. Hopper.

Lumber and Naval Stores.

J. Willard Davis,
Geo. W. Owen,
A. A. Voss,
S. H. Oliver,
Thos. J. Hughes.

Agriculture and Fairs.

W. A. Buck,
Rufus Dane,
T. Manser,
J. W. Field,
O. J. Hood,
Fred Hall.

Arbitration.

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Wm. H. Gardner,
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Leroy Brewer,
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A. P. Bush,
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R. Weaver,
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A. G. McCants,
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Of which, $100,000 to be Owned and Invested in each Department.

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W. T. WALTHALL, General Agent for Southern and Western Alabama: Office, No. 40, St. Francis Street, Mobile.

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